

DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

MONTHLY REVIEW

BUREAU OF LABOR STATISTICS

APRIL 1948—NUMBER 3



1000

VOL

(3rd. 128.)

(See 165.)
1890-91 to 1912.

1000 J. Bull.

1867-1913

dear
inde-
Citi-
invo-
tio-
Br-
me-
ex-
ow-

th
Si
ne
se

me
A
S
su
to
I
w
lo
n
e
s
f

i
d
a
l
—
2

MONTHLY REVIEW

OF THE

U. S. BUREAU OF LABOR STATISTICS

VOL. II—NO. 5

WASHINGTON

MAY, 1916

THE LONGSHOREMAN.¹

The lack of public interest in the longshoreman, reflected in the dearth of literature and current mention, led to a study of this industry in 1912 by Charles B. Barnes, director of the New York City public employment bureau, who has given the results of his investigation in a volume issued in 1915 by the Russell Sage Foundation. The study was concentrated upon conditions in Manhattan, Brooklyn, and Hoboken, and its aim was to give a picture of the men, of the conditions of labor which affect them, of the relations existing between them and their employers and bosses, and of their own efforts to improve their lot in life.

It is estimated, in the absence of accurate figures, that in 1914 there were 35,000 longshoremen in the port of New York City. Since practically all of them are casual or intermittent workers, the necessity and social value of an extensive study of the occupation seemed apparent.

It is estimated that as late as 1880, 95 per cent of the longshoremen in both foreign and coastwise commerce were Irish and Irish-Americans, the remaining 5 per cent being Germans, English, and Scandinavians. At the time of the investigation Irishmen had been superseded largely by Italians, who made up about two-thirds of the total. Many Polaks, Jews, and Negroes have also taken the place of the Irishmen. This shifting of races has been a factor in bringing about what the author characterizes as a "deterioration in efficiency among longshoremen of the port," but he adds that "the readiness of foremen and stevedores to engage a poorer grade of labor, and the general lack of consideration on the part of the employers for the safety and well-being of their employees, must not be disregarded as contributing causes."

The author takes occasion to correct what he believes to be a general impression—that these workers are industrial outcasts, shiftless drunkards, and unworthy of serious attention personally and socially, as well as industrially. A distinction is drawn between the "regular" longshoreman and the "shenango," who does the odd work

¹ The Longshoreman, by Charles B. Barnes. New York Survey Associates, Inc., 1915. 287 pp. Illustrated.

on lighters and barges and who is characterized as the parasite of the trade. It was found that the majority of the regular longshoremen are sturdy, well-built, muscular men; that they are shy but independent, and hate toadyism; that nine-tenths of them are supporters of families; that they are ashamed to be known as longshoremen because of the unsavory reputation the trade has gained; that they are honest, as a rule; have little appreciation of the value of money; are gregariously inclined; and lack thrift. Drunkenness is prevalent but seems to be diminishing. They have few opportunities for advancement. An effort has been made to provide shelter for them while waiting for opportunity to work, but it has resulted in the establishment of only one longshoremen's rest, which was opened on June 15, 1910. During the year 1914 a daily average of 424 people visited the shelter. Up to the date of the report no other provision had been made to shelter these men, and the author concludes that "the facts seem to show that some suitable provision should be made if only in the interest of better citizenship."

Shipping in the port of New York City falls into three divisions—(1) foreign commerce, (2) coastwise trade, and (3) local trade—and it is estimated that three-fourths of the longshoremen are working on vessels which sail to foreign ports. Every phase of the work of longshoremen is described in minute detail, emphasis being given to the lack of standardization of the work and the irregularity of employment. The essential differences between foreign commerce and coastwise and local trade are suggested. Special mention is made of the banana trade, which is a "branch of foreign commerce so different fundamentally from all other types of work which pass under that head that it requires separate treatment." The author concludes, from his detailed analysis of the work performed by the "pier" men, the "deck" men, and the "hold" men, that "longshore work can by no means be classed as unskilled labor."

As a rule longshoremen are hired by the steamship companies themselves, although many are given work by contracting stevedores. The men are engaged either by individuals and gangs or by hundreds. If by the first method, selection may be made by the foreman because of some previous knowledge of them or because they look strong and capable, and they are then given numbered checks of brass to keep until the work is done. By the latter method these brass checks are issued indiscriminately and the men are selected in groups of 100 or less. Those holding the lowest numbers are the first selected and are thus always assured of employment.

It is stated that the rate of pay for longshoremen in foreign commerce has varied many times during the past 50 years, and there has never been complete uniformity throughout the port. Before the

Civil War they were paid \$1.50 per day of 10 hours. Later the rate was raised to 25 cents per hour, then to 30 cents, then to 33 cents, and finally to 40 cents per hour. In 1872 they were paid 80 cents per hour for nightwork and \$1 per hour for Sunday work, the day rate remaining at 40 cents. This schedule was reduced in 1874 and the men went on strike, but lost. Thirty cents per hour for daywork and 45 cents for nightwork and Sunday work was then paid. Later the men were paid extra for work during the meal hour. These frequent fluctuations in wage rates have characterized the industry. On September 2, 1912, the present schedule was arranged—33 cents per hour for daywork, 50 cents for nightwork and on holidays, and 60 cents on Sundays, Christmas, July 4, and for work during mealtime. Foremen are generally paid by the day or week, the usual weekly wage being about \$24. In the coastwise trade the prevailing wage is 30 cents per hour for daywork, 30 to 45 cents for nightwork, and 35 to 50 cents for Sunday work. There is little opportunity for deductions for fines, although instances are given where such have occurred. Some cases of graft among foremen are mentioned. It is stated that earnings of men who work in the local traffic are even more precarious and difficult to estimate than those of the foreign commerce or coastwise men because their work is still more haphazard. Records kept by some of the longshoremen indicate that—

The work is uncertain for even the best men. Stability of income is therefore impossible. In the case of four exceptional men who kept wage records average weekly earnings ranged from \$10.57 to \$21.78, and in order to attain the higher average the men were obliged to work much at night. There is absolutely no way of knowing the average earnings of the less regularly employed.

Men familiar with longshore work estimate the average yearly earnings of longshoremen at from \$520 to \$624 a year. Other men of equal experience place this average considerably lower—at less than \$500.

There is no guaranty of permanency of employment when obtained; it depends entirely upon the time the ship docks and the urgency of immediate discharge or loading of cargo. Often the men work through the meal hour, at night, and on Sundays and holidays, and it was found that these long stretches are exceedingly exhausting, resulting in increased risk of accidents and liability to disease due to physical depletion. Men are discharged without notice whenever a job is finished, or turned off for an hour or two without pay when a delay in the work occurs. This irregularity of employment is illustrated by the diary record of a certain longshoreman which shows that on 298 days out of 602, or nearly one-half (49.5 per cent), he did no work. Assuming that the longshoreman, like any other workman, should normally rest one day in seven, his abnormal unemployment would be represented by 298 days minus 86 days, or 212

days, which is only 35.2 per cent of the total of 602 days. Moreover, on 73 of the 304 days when he was at work his time was five hours or less. Yet there were 53 days on which he worked from 13 to 22 hours, and on four of these days his work continued more than 20 hours. There were 15 weeks (not consecutive) in which there was lack of employment throughout the entire week.

The demoralizing effect of this irregularity of employment is emphasized. Hanging about the piers in the hope of obtaining work—and being frequently turned away without securing it—has given the longshoreman the reputation for loafing and shiftlessness and has tended directly to encourage irregular habits and drinking and to discourage thrift. The maladjustment of available labor along the water front, due to lack of cooperation among employers, works to the disadvantage of the men, meaning for many unemployment or chronic underemployment. It was developed that the greatest evil of this work is its casual or intermittent character, which, if it cannot be entirely eradicated, should be minimized. How dock labor has been largely decasualized in Europe is described in great detail in appendixes giving the results achieved, particularly in London and Liverpool.

Numerous disputes have arisen between these workers and the steamship companies, but only three strikes of any consequence have occurred—in 1874, 1887, and 1907. In each case the matter of wages was the chief grievance, the strike being caused by a rejection on the part of the companies of definite demands by the men or being called as a protest by the men against reductions in rates of wages initiated by the companies.

The great strikes left in their wake decreased vitality, dissensions, or utter ruin. After the strike of 1887 the unions entirely died out and it was 10 years before they were again organized. The result of the strike of 1907 was the division of the unions into two separate bodies with all the evil that attends such division. The loss of the first two strikes resulted in a decrease of wages, while after the strike of 1907 the wages remained the same. Whenever an advance in wages has been secured it has been the result of a demand presented with calm determination to the companies. In some cases the companies seeing the justice of the demand have acceded; at other times they have been forced to yield by the united resolution of the men to hinder the work in all possible ways until they won their point. Thus, quiet persistence and not the strike has been the road to success.

Longshoremen's unions have existed since the middle of the last century. They have had an active and stormy history. But the slight advantages won after the strikes have usually been lost again. The unions have never been strong enough to exact their demands from the employers, nor have they been sufficiently united in spirit and purpose to maintain any consistent policy. Poor judgment, stubbornness, dishonesty among the leaders, jealousies, antagonisms among the men and between locals have prevented any effective use of the power at their disposal.

In the author's opinion it is probable that there is no other heavy physical work which is accompanied with so much overtime and such long stretches of toil without interruption as the work of the long-shoreman.

Efforts to secure definite information as to accidents were almost a failure, but data were obtained concerning 309 authentic cases. Of these 96 were fatal and 213 nonfatal. The exact places where the accidents happened were ascertained in 191 cases and indicated that the work in the hold entails greater risk by far than that in any other position. "Yet it must be remembered that although the majority of accidents are reported as occurring in the hold, it is not always the hold men who are hurt. The deck men may be thrown down the hatchway. It is questionable whether they or the hold men are the most exposed of the entire hatch gang."

Of the nonfatal injuries it is stated that "there is practically no part of the human frame that is not in danger of fracture, laceration, or contusion." The leg and the foot were most often hurt. The loss of time varied from a few weeks to several months, with five cases in which the men were laid off two years or more. The average age of those whose ages were learned was 39 years, and of the 153 men whose conjugal condition was ascertained, two-thirds were married. In 65 fatal accidents the circumstances of which were ascertained, not one was found to be due to the carelessness of the victim himself. Three were attributed to the carelessness of fellow workmen, 30 were classed as due to defective equipment or faulty methods, and 32 resulted from sudden dangers which could not be foreseen by the men, "which goes far to prove the extrahazardous nature of the occupation." Of the 97 nonfatal accidents studied, at least 56 were preventable, it is stated, and only 4 of these were due to carelessness of the person injured.

The difficulty of discovering the compensation paid to dependents when a longshoreman is killed at work is alluded to. In the 96 fatal cases compensation ranging from \$400 to \$1,000 was awarded in five instances. In 27 cases, almost 30 per cent, it is stated that there is evidence that no damages were paid, and in 64 cases it was impossible to learn whether or not payment had been made. In nonfatal cases it was found that indemnity ranging from a wooden leg to \$1,000 was given in 20 cases. In several instances amounts ranging from \$25 to \$75 were paid for fractures or other injuries when the victim through no fault of his own had lost from one to four months' time. The author points out that the workers themselves are quick to respond to calls for help for fellow workers and the collections which have been taken ranged in amount from \$40 to \$78.

In Europe, where more definite and accurate information is available, in the ratings of the English and Continental insurance companies water-front work heads the list or is a close second among all the hazardous occupations.

The British statistics showing mortality in 105 occupation groups from specific causes other than accidents indicate that during the period 1900-1902 the deaths among dock and wharf laborers in a standard population of 71,005 were 632 from phthisis, pneumonia, and bronchitis combined, or a decrease of 34.1 per cent over the period 1890-1892. The mortality among these laborers was greater than that of any other occupation group dealt with, being in the latter period more than twice that of coal miners and only slightly less than twice that of stone and slate quarriers, and bricklayers, masons, and builders.

In view of excessive mortality among longshoremen, the author points out that this country "has the unenviable reputation of being practically the only nation with a large foreign commerce which has absolutely no regulations for the protection of men engaged in longshore work"; and to illustrate the extent to which safety regulations have been adopted in certain foreign ports the full text of the British statutory rules and orders of 1904, and the revised accident prevention regulations of the accident insurance association of the stevedoring industry for 1905 governing the work in British ports, and the regulations for prevention of accidents issued by the harbor inspection department of Hamburg are presented in the appendixes. The author is strong in his suggestion that radical changes are necessary in order to secure protection to workmen in the New York City port. Some improvements are noted, but they have been improvements in machinery and "have tended chiefly toward increased efficiency so that the work may be done with greater rapidity and on a larger scale." Emphasis is placed on the necessity for the proper inspection of gear and machinery, and the installation of proper safeguards, and the prohibition of careless habits of work.

Based on the results achieved in European ports and other ports of this country where public interest has been aroused, the author sees possibilities for bettering the condition of these workmen. In Europe the great attainment of employers has been the decasualization of labor by the establishment of preference classes and by pooling of labor over a large area, thus reducing to a minimum the irregularity of employment. How this has been done is described in the appendixes. It is pointed out in the report and elaborated in an appendix that in efficiency and organization Hamburg is pre-eminent, but its "system under which contract laborers are employed is arbitrary and oppressive."

What has been done can be done again. England and Germany have blazed a trail which is of immense service in pointing the direction our own progress should take. This direction is toward increased good will, greater cooperation of supposed conflicting interests, an enlarged sense of legislative responsibility, and a more farseeing application of the principle of efficiency throughout all phases of the industry of the port.

CONCILIATION WORK OF THE DEPARTMENT OF LABOR, MARCH 16 TO APRIL 15, 1916.

On the authority contained in the organic act of the department to mediate in labor disputes and to appoint commissioners of conciliation in its discretion, the Secretary of Labor, through the commissioners of conciliation, exercised his good offices in eight labor disputes between March 16 and April 15, 1916.

The companies involved in the eight controversies, the number of employees affected, and the results secured, as far as available, are shown in the following statement:

NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION, MAR. 16 TO APR. 15, 1916.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Haynes Automobile Co., Kokomo, Ind.—lockout.....	25	1,075	Adjusted.
Grand Central Terminal Co., New York—controversy.....			Pending.
Texas & Pacific Ry. Co. and clerks—controversy.....	700	8,000	Do.
Pullman Car Cleaners—strike.....	800	.....	Adjusted.
Anderson Drop Forge Co., Detroit, Mich.—strike of machinists.....	.....	.....	Pending.
Hancock Knitting Mills, Philadelphia—strike.....	.....	.....	Do.
Cramp Ship Building Yards, Philadelphia—strike of boiler makers and ship builders.....	1,500	.....	Do.
Chicago & Alton R. R. and its maintenance of way employees—controversy.....			Do.

There has been an adjustment in the following cases which were noted as pending in the statement submitted March 15, 1916, and published in last month's REVIEW:

Controversy, New York, New Haven & Hartford Railroad and its mechanical forces.

Strike of machinists, Edwards Valve Co., East Chicago, Ind.

New York, Ontario & Western Railway, Middletown, N. Y.

FEDERAL EMPLOYMENT WORK OF THE DEPARTMENT OF LABOR.

During March, 1916, the Division of Information of the Department of Labor placed 7,030 persons in employment as compared

with 4,185 during February, 1916. As there were 19,484 applications for work, 36.08 per cent were therefore placed, as compared with 29.35 per cent for February. The operations of the division by months since May, 1915, when fuller reports began to be made, are contained in the following statement:

OPERATIONS OF THE DIVISION OF INFORMATION, BUREAU OF IMMIGRATION, DURING THE MONTHS OF MAY, 1915, TO MARCH, 1916.

Month.	Number of applications for help.	Number of persons applied for.	Number of applicants for places.	Number referred to employment.	Number actually employed.	Per cent of applicants placed.
1915.						
May.....	638	3,826	12,132	3,752	3,495	28.81
June.....	1,249	3,601	14,530	5,131	4,646	31.98
July.....	1,160	8,665	18,061	6,360	6,035	33.41
August.....	1,279	7,931	17,827	7,321	6,757	37.90
September.....	1,201	4,551	13,334	5,671	5,405	40.54
October.....	1,104	5,423	12,215	5,460	5,006	40.98
November.....	847	4,650	11,908	4,459	4,146	34.82
December.....	698	3,588	11,902	2,622	2,170	18.23
1916.						
January.....	933	5,063	15,015	4,300	3,419	22.78
February.....	1,423	6,413	14,257	5,036	4,185	29.35
March.....	3,443	10,209	19,484	8,113	7,030	36.08

The following statement of the employment work of the 18 separate zones of operation covering the whole country gives the usual details for February and March, 1916:

SUMMARY OF ACTIVITIES FOR THE MONTHS OF FEBRUARY AND MARCH, 1916.

Zone.	Opportunities received.				Applications for employment.			
	Applications for help.		Persons applied for.		Applications received.		Referred to employment.	
	Febr-	March.	Febr-	March.	Febr-	March.	Febr-	March.
1. Boston, Mass.....	1	2	1	50	26	73	.....	10
Portland, Me.....								
Total.....	1	2	1	50	26	73	.....	10
2. New York, N. Y.....	106	157	1,189	789	1,122	1,229	500	785
Buffalo, N. Y.....	50	60	1,787	791	855	811	638	703
Total.....	156	217	2,976	1,580	1,977	2,040	1,138	1,488
3. Philadelphia, Pa.....	93	113	117	1,371	412	413	227	384
Pittsburgh, Pa.....	8	30	18	176	508	774	206	319
Total.....	101	143	135	1,547	920	1,187	433	703
4. Baltimore, Md.....	24	15	47	17	233	158	173	137
5. Norfolk, Va.....	25	20	29	215	95	104	18	25
6. Jacksonville, Fla.....	2	.....	6	9	16	.....	1	.....
Charleston, S. C.....	5	3	40	226	74	52	58	54
Miami, Fla.....	16	8	25	16	98	98	21	18
Mobile, Ala.....	1	.....	1	.....	7	6	.....	13
Savannah, Ga.....	5	3	374	30	72	37	44	30
Total.....	27	16	440	278	260	209	123	103

SUMMARY OF ACTIVITIES FOR THE MONTHS OF FEBRUARY AND MARCH, 1916—Contd.

Zone.	Opportunities received.				Applications for employment.					
	Applications for help.		Persons applied for.		Applications received.		Referred to employment.		Number actually employed.	
	Febr-	March.	Febr-	March.	Febr-	March.	Febr-	March.	Febr-	March.
7. New Orleans, La.	3	3	3	5	96	214	20	17	1	2
Gulfport, Miss.	1	3	1	3	47	64	—	3	—	—
Memphis, Tenn.	2	1	22	20	38	23	1	2	1	2
Total.	6	7	26	28	181	301	21	22	2	4
8. Galveston, Tex.	6	3	13	9	70	64	19	13	11	8
Amarillo, Tex.	—	—	—	—	1	—	—	—	—	—
Eagle Pass, Tex.	—	—	—	—	—	1	—	—	—	—
Albuquerque, N. Mex.	—	—	—	—	8	—	—	—	—	—
Houston, Tex.	8	1	10	1	155	78	5	—	5	—
Laredo, Tex.	—	—	—	—	—	—	—	—	—	—
San Angelo, Tex.	—	—	—	—	—	5	—	1	—	—
Total.	14	5	23	11	234	148	24	14	16	8
9. Cleveland, Ohio.	33	90	365	100	197	113	124	88	42	34
10. Chicago, Ill.	95	138	156	952	2,503	6,152	850	950	840	924
Detroit, Mich.	64	158	147	523	137	376	82	288	79	288
Indianapolis, Ind.	33	51	235	225	309	257	250	247	250	247
Sault Ste. Marie, Mich.	7	5	54	33	45	64	35	46	34	42
Total.	199	352	592	1,733	2,994	6,849	1,217	1,531	1,203	1,501
11. Minneapolis, Minn.	103	156	114	164	63	162	31	69	29	69
12. St. Louis, Mo.	13	29	31	610	237	227	29	61	23	49
Kansas City, Mo.	41	61	93	125	493	591	45	203	40	97
Total.	54	90	124	735	730	818	74	264	63	146
13. Denver, Colo.	15	12	17	15	126	70	50	40	11	7
Salt Lake City, Utah.	—	—	—	—	—	—	—	—	—	—
Total.	15	12	17	15	126	70	50	40	11	7
14. Helena, Mont.	2	3	5	4	18	11	11	7	1	—
Moscow, Idaho.	2	—	2	—	—	—	5	—	2	—
Total.	4	3	7	4	18	11	16	7	3	—
15. Seattle, Wash.	26	72	40	120	322	512	29	110	28	101
Aberdeen, Wash.	10	33	41	98	175	230	41	98	41	98
Bellingham, Wash.	9	26	11	63	94	179	9	59	8	50
Everett, Wash.	5	15	8	21	25	53	8	21	8	16
North Yakima, Wash.	122	352	168	563	487	980	165	542	164	512
Spokane, Wash.	57	81	65	110	137	139	38	100	38	97
Takoma, Wash.	53	162	111	465	538	1,421	110	465	109	465
Walla Walla, Wash.	58	138	77	235	308	343	64	180	60	179
Total.	340	879	521	1,675	2,086	3,857	464	1,575	456	1,518
16. Portland, Oreg.	8	946	13	1,043	126	783	8	910	8	906
17. San Francisco, Cal.	174	216	215	281	2,180	1,286	308	305	184	248
Fresno, Cal.	—	—	—	—	—	—	—	—	—	—
Total.	174	216	215	281	2,180	1,286	308	305	184	248
18. Los Angeles, Cal.	1	1	1	2	540	557	1	1	1	1
Bakersfield, Cal.	1	—	5	—	29	3	5	—	5	—
San Diego, Cal.	136	273	761	731	1,241	753	808	821	753	716
Tucson, Ariz.	1	—	1	—	1	2	—	—	—	—
Total.	139	274	768	733	1,811	1,315	814	822	759	717
Total for month.	1,423	3,443	6,413	10,209	14,257	10,484	5,036	8,113	4,185	7,030

WORK OF STATE AND MUNICIPAL EMPLOYMENT BUREAUS.

In continuation of the publication of data relative to the operations of free public employment offices, begun in the January, 1916, issue of the REVIEW, the following table is presented. In this table, information is given for State employment bureaus in 11 States, municipal employment bureaus in 8 States, State-city employment bureaus in 2 States, and a city-private employment bureau in 1 State. Data are given for February, 1915, and February, 1916, from bureaus not included in the April issue of the REVIEW, but which have furnished such information since the publication of that number. Figures for March, 1916, are given for all bureaus that have reported those data, and figures for March, 1915, are also presented for comparative purposes in cases where reports for that month have been received.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY AND MARCH, 1915 AND 1916.

State and city.	Number of—					
	Applications from employers.	Persons asked for by employers.	Persons applying for work.		Persons referred to positions.	Positions filled.
			New registrations.	Renewals.		
<i>California (municipal).</i>						
Berkeley:						
March, 1915.....	271	306	197	705	306	306
March, 1916.....	240	259	104	554	259	259
Los Angeles ¹ : March, 1916.....	(2)	7,366	1,972	(2)	7,468	6,879
Sacramento:						
March, 1915.....	170	(2)	113	(2)	313	313
March, 1916.....	182	(2)	82	(2)	312	312
<i>Colorado (State).</i>						
Colorado Springs:						
March, 1915.....	(2)	322	(2)	(2)	(2)	304
March, 1916.....	(2)	552	681	(2)	509	(2)
Denver No. 1:						
March, 1915.....	(2)	104	(2)	(2)	(2)	164
March, 1916.....	(2)	196	214	(2)	146	(2)
Denver No. 2:						
March, 1915.....	(2)	217	(2)	(2)	(2)	217
March, 1916.....	(2)	260	446	(2)	233	(2)
Pueblo:						
March, 1915.....	(2)	51	(2)	(2)	(2)	49
March, 1916.....	(2)	243	253	(2)	223	(2)
<i>Connecticut (State).</i>						
Bridgeport:						
February, 1915.....	169	(2)	(2)	(2)	(2)	155
February, 1916.....	383	(2)	(2)	(2)	(2)	335
March, 1915.....	233	(2)	(2)	(2)	(2)	207
March, 1916.....	541	(2)	(2)	(2)	(2)	482
Hartford:						
February, 1915.....	181	(2)	(2)	(2)	(2)	162
February, 1916.....	550	(2)	(2)	(2)	(2)	460
March, 1915.....	210	(2)	(2)	(2)	(2)	166
March, 1916.....	562	(2)	(2)	(2)	(2)	427
New Haven:						
February, 1915.....	146	(2)	(2)	(2)	(2)	119
February, 1916.....	451	(2)	(2)	(2)	(2)	325
March, 1915.....	180	(2)	(2)	(2)	(2)	133
March, 1916.....	510	(2)	(2)	(2)	(2)	403
Norwich:						
February, 1915.....	32	(2)	(2)	(2)	(2)	27
February, 1916.....	161	(2)	(2)	(2)	(2)	156
March, 1915.....	40	(2)	(2)	(2)	(2)	32
March, 1916.....	213	(2)	(2)	(2)	(2)	201

¹ State-city.² Not reported.³ Not reported for males.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY AND MARCH, 1915
AND 1916—Continued.

State and city.	Number of—					Posi- tions filled.
	Appli- ca- tions from employ- ers.	Persons asked for by employ- ers.	Persons applying for work.	New regis- tra- tions.	Re- newals.	
<i>Connecticut (State)—Concluded.</i>						
Waterbury:						
February, 1915.....	123	(1)	(1)	(1)	(1)	93
February, 1916.....	179	(1)	(1)	(1)	(1)	92
March, 1915.....	175	(1)	(1)	(1)	(1)	143
March, 1916.....	202	(1)	(1)	(1)	(1)	110
<i>Georgia (municipal).</i>						
Atlanta: March, 1916.....	99	113	214	130	125	79
<i>Illinois (municipal).</i>						
Chicago: March, 1916.....	367	1,624	350	(1)	1,624	912
<i>Indiana (State).</i>						
Evansville:						
March, 1915.....	(1)	125	3289	(1)	132	122
March, 1916.....	(1)	178	3268	(1)	184	159
Fort Wayne:						
March, 1915.....	(1)	132	3348	(1)	148	127
March, 1916.....	(1)	301	3290	(1)	273	250
Indianapolis:						
March, 1915.....	(1)	154	3367	(1)	160	152
March, 1916.....	(1)	356	3425	(1)	367	338
South Bend:						
March, 1915.....	(1)	174	3587	(1)	182	172
March, 1916.....	(1)	430	3482	(1)	344	322
Terre Haute:						
March, 1915.....	(1)	245	3397	(1)	242	228
March, 1916.....	(1)	(1)	(1)	(1)	(1)	(1)
<i>Kansas (State).</i>						
Topeka:						
March, 1915.....	10	10	58	5	10	7
March, 1916.....	21	21	86	6	16	16
<i>Kentucky (city-private).</i>						
Louisville: March, 1916.....	(1)	174	331	713	183	88
<i>Massachusetts (State).</i>						
Boston:						
March, 1915.....	1,179	1,350	4770	(1)	52,367	1,134
March, 1916.....	1,984	2,341	41,419	(1)	53,955	1,701
Fall River:						
March, 1915.....	120	132	429	(1)	5114	100
March, 1916.....	127	143	438	(1)	5133	110
Springfield:						
March, 1915.....	688	724	4246	(1)	5882	547
March, 1916.....	786	962	4334	(1)	51,133	727
Worcester:						
March, 1915.....	477	562	4565	(1)	5834	379
March, 1916.....	956	1,191	4703	(1)	51,483	735
<i>Michigan (State).</i>						
Detroit:						
March, 1915.....	(1)	(1)	(1)	(1)	(1)	2,064
March, 1916.....	5,733	6,000	(1)	(1)	5,849	5,189
Kalamazoo:						
March, 1915.....	(1)	(1)	(1)	(1)	(1)	250
March, 1916.....	550	620	3600	(1)	(1)	406
Saginaw: March, 1916.....	670	670	3640	(1)	640	640
<i>Minnesota (State).</i>						
Duluth:						
March, 1915.....	(1)	(1)	(1)	(1)	(1)	408
March, 1916.....	(1)	(1)	(1)	(1)	(1)	650
Minneapolis:						
March, 1915.....	(1)	(1)	(1)	(1)	(1)	1,156
March, 1916.....	(1)	(1)	(1)	(1)	(1)	1,251
St. Paul:						
March, 1915.....	(1)	(1)	(1)	(1)	(1)	571
March, 1916.....	(1)	(1)	(1)	(1)	(1)	708

¹ Not reported.² Number of requisitions.³ Number applying for work.⁴ Number who were registered.⁵ Number of offers of positions.

12 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY AND MARCH, 1915
AND 1916—Continued.

State and city.	Number of—					Persons referred to positions.	Positions filled.		
	Applications from employers.	Persons asked for by employers.	Persons applying for work.						
			New registrations.	Renewals.					
<i>Montana (municipal).</i>									
Butte:									
March, 1915.....	(1)	(1)	2,359	(1)	146		130		
March, 1916.....	(1)	(1)	2,660	(1)	(1)		357		
<i>New York (municipal).</i>									
New York City:									
March, 1915 ²	360	1,168	2,645	(1)	1,233		402		
March, 1916 ⁴	2,279	2,502	2,316	(1)	2,761		1,926		
<i>Ohio (State-city).</i>									
Akron: March, 1916.....	(1)	1,789	586	1,445	1,360		1,110		
Cincinnati:									
March, 1915.....	(1)	1,009	1,387	6,676	1,066		761		
March, 1916.....	(1)	2,286	1,790	4,130	2,020		1,356		
Cleveland:									
March, 1915.....	(1)	3,832	3,265	12,711	3,715		3,273		
March, 1916.....	(1)	7,209	1,984	7,819	5,151		4,377		
Columbus:									
March, 1915.....	(1)	1,947	758	4,695	1,989		1,751		
March, 1916.....	(1)	2,223	900	2,601	2,128		1,604		
Dayton:									
March, 1915.....	(1)	525	465	1,908	548		396		
March, 1916.....	(1)	1,235	518	1,214	1,013		845		
Toledo:									
March, 1915.....	(1)	771	1,115	2,749	709		672		
March, 1916.....	(1)	3,008	1,227	2,267	2,414		1,999		
Youngstown: March, 1916.....	(1)	1,115	816	1,191	1,170		908		
<i>Oklahoma (State).</i>									
Enid:									
March, 1915.....	47	(1)	2,112	(1)	(1)		51		
March, 1916.....	239	(1)	2,265	(1)	(1)		237		
Muskogee:									
March, 1915.....	83	(1)	2,118	(1)	(1)		60		
March, 1916.....	254	(1)	2,187	(1)	(1)		150		
Oklahoma City:									
March, 1915.....	222	(1)	2,462	(1)	(1)		211		
March, 1916.....	267	(1)	2,271	(1)	(1)		220		
Tulsa:									
March, 1915.....	(1)	(1)	(1)	(1)	(1)		(1)		
March, 1916.....	362	(1)	2,324	(1)	(1)		320		
<i>Pennsylvania (State).</i>									
Harrisburg: March, 1916.....	(1)	320	316	118	336		221		
Johnstown: March, 1916.....	(1)	264	82	17	66		42		
Philadelphia: March, 1916.....	(1)	647	761	350	589		391		
Pittsburgh: March, 1916.....	(1)	2,959	1,170	37	708		668		
<i>Rhode Island (State).</i>									
Providence:									
March, 1915.....	396	691	578	133	(1)		691		
March, 1916.....	258	268	196	150	(1)		268		
<i>Texas (municipal).</i>									
Dallas:									
March, 1915.....	70	84	153	20	93		84		
March, 1916.....	188	238	86	6	284		238		
Fort Worth:									
March, 1915.....	103	138	2,1,088	(1)	146		133		
March, 1916.....	160	217	239	63	201		185		
<i>Virginia (municipal).</i>									
Richmond:									
March, 1915.....	128	505	2,851	(1)	454		333		
March, 1916.....	237	380	555	(1)	489		171		

¹ Not reported.

² Number applying for work.

³ Does not include branches.

⁴ Includes branches.

the cultivation of their holdings, the purchase of supplies, and the disposal of products.

It is not recommended that the State should directly supply capital for the undertaking, but that it should take part in promoting, with State assistance, cooperative credit societies.

STRIKES AND LOCKOUTS IN THE UNITED STATES IN 1915.

Statistics of strikes and lockouts in the United States covering the years 1881 to 1905, inclusive, have been the subject of four annual reports of the Bureau of Labor Statistics, published in 1887, 1894, 1901, and 1906. The data for these reports were secured by thorough investigations by trained field agents, and it is probable that few strikes and lockouts were omitted. Because of the time and expense involved the Bureau has not considered it possible to continue this method, although it is probably the only one likely to secure complete returns.

In 1914 an attempt was made to compile a record of strikes and lockouts entirely from printed sources—newspapers, labor journals, trade-union periodicals, and manufacturers', trade, and other papers. In 1915 the same method was continued, and in connection with about 1,400 strikes an attempt was made to supplement the information thus obtained by sending a schedule of inquiry to persons thought to have detailed knowledge concerning them. About two-thirds of these schedules went to strikers or organizations representing them and one-third to employers or their organizations. In a number of cases schedules were sent to more than one person regarding the same strike. Seven hundred and forty-eight schedules were returned answered in whole or in part. In addition, a number of letters and circulars were sent asking for supplemental information. This report is based on the data secured from newspapers and from other sources, modified by the replies made to schedules and letters.

The number of strikes and lockouts covered in 1914 was 1,080, which has since been increased to 1,204, by examination of reports made after the close of the year. The number recorded in 1915, including those pending on the last day of 1914 and settled during the year 1915, was 1,246 strikes and 159 lockouts, a total of 1,405, which will probably be increased to 1,500 if the additional number found in reports this year approximates that found last year.

Whether strikes and lockouts have increased in number in the United States since 1905, the last year covered by the Bureau's field investigation, is not shown by the figures gathered during the last two years. It would be manifestly incorrect to compare the incomplete data so collected with the more comprehensive reports secured

in the former investigations. In spite of the incompleteness of the data for 1915, however, the figures give considerable information of value in regard to the labor disputes which occurred in that year.

It is often difficult to determine from the wording of a newspaper item whether the disturbance is a strike or not. Many papers refer to every misunderstanding between employers and their employees as a strike, and many employers refuse to admit that any disturbance in their establishments ever progressed beyond a misunderstanding. When there has been any question as to the classification of a dispute, effort has been made to secure statements from both sides, in two cases schedules having been sent to as many as five persons, and the decision as to the classification has been based upon the statements received. The rule has been to omit doubtful cases.

Under strikes have been included all disputes where the employees refused to work unless the management complied with certain demands, and under lockouts all disputes where the management refused to allow the employees to work except under conditions dictated by the employers.

The number of strikes occurring during the late summer and early fall largely exceeded those occurring at other times of the year. Two-thirds of those starting during the last six months of the year 1915 were for increase of wages or decrease of working hours. They were successful in most cases.

The so-called munitions strikes attracted special attention in 1915. These strikes started in Bridgeport, Conn., during the latter part of July, and spread rapidly to Rhode Island, Massachusetts, New York, Ohio, and other States where metal goods are manufactured. They consisted generally of a demand for a shorter working-day without reduction of wages, and in some cases the demand was for increased wages, though the strikers rarely got all the increase asked for.

The strikes in the clothing industry in New York, Boston, Philadelphia, Baltimore, and Chicago involved a large number of strikers, but their duration was comparatively short, except in Chicago, where the strike lasted for about three months and involved from 6,000 to 25,000 people.

Other strikes attracting wide attention were those in the building trades in Chicago from April to July, which practically paralyzed the building industry of that city for the time; the oil and chemical strikes in Elizabeth, N. J., and neighboring cities during the summer, which, though short, were accompanied with rioting and loss of life; the street-car strike in Chicago in June; and the strike of the silverworkers in Connecticut in October, which had not been settled at the close of the year. Though the long-continued coal strike in Colorado was brought to an end just before the opening of the year, the attention of the public continued to be directed to it through the efforts made by

the mine owners to settle the many questions that had not been finally considered at the termination of the strike. The coal strikes in the middle west were settled late in the fall of 1914 and early in 1915, with the exception of the eastern Ohio strikes, which were not settled until May. The copper mine strike in Arizona was settled just after the close of the year.

The causes of strikes and lockouts during the year were numerous. In few cases was the cause confined to one matter in dispute. In the following table an effort has been made to show the principal causes of the strikes tabulated, though this has been difficult in many cases on account of the indefinite character of the information available.

NUMBER OF STRIKES AND LOCKOUTS, BY CAUSES, 1915.

Matter of dispute.	Strikes.	Lockouts.	Matter of dispute.	Strikes.	Lockouts.
Increase of wages.....	286	12	For organizing.....		12
Decrease of wages.....	90	10	For open or closed shop.....	20	12
Nonpayment of wages.....	10	1	Discharge of foreman wanted.....	11	.....
Increase of hours.....	7	.....	Because of discharge of union men.....	60	13
Decrease of hours.....	67	7	Because of employment of nonunion men.....	40	5
Wages and hours.....	133	2	Discrimination.....	8	.....
General conditions.....	35	4	Sympathetic.....	9	1
Conditions and wages.....	28	1	Jurisdictional.....	25	.....
Conditions and hours.....	6	.....	Miscellaneous.....	113	22
Conditions, wages, and hours.....	11	1	Not reported.....	208	39
Recognition of the union.....	37	15	Total.....	1,246	159
Recognition and wages.....	26	1			
Recognition and hours.....	6	.....		
Recognition, wages, and hours.....	10	1			

The results of the disputes are difficult to state because in many cases both sides claimed the victory. When the question related to wage increase or reduction of working hours the unions generally asked for more than they expected to get and accepted less than they demanded but more than they were receiving before the strike. Again, strikes were frequently called when there was but one point at issue, but in their settlement that point was ignored and other matters settled that would not have been considered if there had been no strike. Each case has been considered by itself in making the following table and a larger number have been placed in the compromise class than either side to the controversy would probably admit was warranted.

RESULTS OF STRIKES AND LOCKOUTS, 1915.

Result.	Strikes.	Lockouts.
Won.....	164	16
Compromised.....	273	30
Lost.....	128	17
Employees returned, pending arbitration.....	28	2
Total.....	593	65
Pending.....	140	31
Not reported.....	513	63
Grand total.....	1,246	159

As shown in the following table the duration of the strikes that ended in 1915 varied from less than one day to three years and nine months, the latter being the strike of federated shopmen on the Harriman lines that was finally called off in June.

DURATION OF STRIKES AND LOCKOUTS.

Duration.	Strikes.	Lockouts.	Duration.	Strikes.	Lockouts.
Less than one day.....	10		19 to 21 days.....	20	
1 day.....	30	1	22 to 24 days.....	22	3
2 days.....	43		25 to 28 days.....	14	1
3 days.....	41	1	29 to 31 days.....	13	2
4 days.....	26	2	32 to 35 days.....	12	1
5 days.....	29	2	36 to 42 days.....	21	
6 days.....	23		43 to 49 days.....	9	4
7 days.....	24	3	50 to 63 days.....	20	4
8 days.....	19	2	64 to 77 days.....	12	2
9 days.....	12	1	78 to 91 days.....	13	2
10 days.....	18		92 to 199 days.....	22	7
11 days.....	12		200 to 1,367 days.....	15	2
12 days.....	6	1			
13 days.....	13	2	Total.....	531	49
14 days.....	16	1			
15 to 18 days.....	16	5			

The total duration of these strikes was 18,973 days and of the lockouts 3,075 days, the average duration of the strikes being 36 days and of the lockouts 63 days. If, however, the 37 strikes and 9 lockouts which lasted more than three months are omitted from consideration, the average was 17 days for strikes and 27 days for lockouts.

The number of strikes and lockouts starting each month during the year is shown in the following table:

NUMBER OF STRIKES AND LOCKOUTS BY MONTHS IN WHICH STARTED, 1915.

Month.	Strikes.	Lockouts.	Month.	Strikes.	Lockouts.
Pending Dec. 31, 1914.....	37	17	September.....	146	14
January.....	49	13	October.....	102	7
February.....	45	12	November.....	102	10
March.....	72	14	December.....	70	8
April.....	88	16			
May.....	110	10	Total.....	1,104	148
June.....	52	6	Month not stated.....	142	11
July.....	94	14			
August.....	137	7	Grand total.....	1,246	159

In the above table only those strikes are counted as pending December 31, 1914, which were actually settled during the year 1915.

In 701 strikes and 144 lockouts the employees were connected with unions; in 117 strikes and 3 lockouts they were nonunion employees; in 29 strikes they were nonunion at the time of striking but organized almost immediately after; the relation of employees to unions was

not reported for 399 strikes and 12 lockouts. In 926 strikes and 128 lockouts all the employees directly affected were men, and in 31 strikes and 4 lockouts all were women, while both sexes were affected in 113 strikes and 18 lockouts; the sex of employees was not reported for 176 strikes and 9 lockouts.

The number of persons involved in strikes and lockouts in 1915 is shown in the following table:

NUMBER OF STRIKES AND LOCKOUTS BY CLASSIFIED NUMBER OF PERSONS INVOLVED, 1915.

Group of persons involved.	Strikes.	Lockouts.	Group of persons involved.	Strikes.	Lockouts.
1 to 5.	45	17	351 to 400.	18	1
6 to 10.	45	12	401 to 450.	9	
11 to 15.	22	8	451 to 500.	22	2
16 to 20.	29	6	501 to 600.	19	
21 to 25.	27	7	601 to 700.	13	1
26 to 30.	25	2	701 to 800.	14	1
31 to 40.	36	12	801 to 1,000.	17	3
41 to 50.	38	9	1,001 to 1,200.	15	
51 to 60.	21	2	1,201 to 1,500.	16	2
61 to 70.	18	2	1,501 to 2,000.	10	2
71 to 80.	22	4	2,001 to 3,000.	14	
81 to 90.	8	1	3,001 to 5,000.	11	
91 to 100.	27	1	5,001 to 10,000.	9	
101 to 125.	35	4	10,001 to 30,000.	7	1
126 to 150.	37	9			
151 to 175.	12	1	Total.	752	121
176 to 200.	43	5	Not reported.	494	38
201 to 250.	31	3			
251 to 300.	24	1	Grand total.	1,246	159
300 to 350.	13	2			

There were 468,983 persons involved in the 752 strikes for which information was available and 35,298 in the 121 lockouts, the proportion of males to females being about 9 to 1. The average employees per strike was 624 and per lockout 293, but omitting the 41 strikes and 1 lockout involving 2,000 persons and upward, the average was 261 per strike and 145 per lockout.

In 1,198 disturbances the number of establishments involved in each was stated. In each case only 1 establishment was involved by 929 strikes and 107 lockouts, or 86 per cent of all disputes for which this information was available; 2 by 46 strikes and 11 lockouts; 3 by 12 strikes and 8 lockouts; 4 by 11 strikes and 1 lockout; from 5 to 86 by 49 strikes and 16 lockouts; from 111 to 500 by 6 strikes, while one strike involved 700 and one 1,200 establishments.

The following tables show the number of strikes and lockouts in the 13 industry groups and in the 14 individual occupations in which the largest number of strikes occurred. Corresponding figures for 1914 are given from the report of last year. In comparing the two years, allowance should be made for the incompleteness of the figures, unavoidable under the method adopted for securing the data.

18 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

NUMBER OF STRIKES IN THE 13 INDUSTRY GROUPS IN WHICH THE LARGEST NUMBER OF STRIKES OCCURRED, 1914 AND 1915.

Industry.	1915		1914
	Strikes.	Lockouts.	Strikes and lockouts.
Metal trades.....	280	41	129
Building trades.....	204	27	275
Clothing industries.....	127	12	78
Textile work.....	77	7	54
Mining.....	65	2	51
Baking.....	30	33	47
Iron and steel workers.....	30	.....	14
Teaming.....	28	2	34
Furniture.....	16	4	18
Theatrical employees.....	14	5	20
Transportation.....	17	1	52
Lumber.....	13	1	40
Printing and publishing.....	4	3	20

NUMBER OF STRIKES IN THE 14 INDIVIDUAL OCCUPATIONS IN WHICH THE LARGEST NUMBER OF STRIKES OCCURRED, 1914 AND 1915.

Occupation.	1915		1914
	Strikes.	Lockouts.	Strikes and lockouts.
Machinists.....	163	16	44
Bakers.....	30	33	47
Miners, coal.....	55	2	48
Carpenters.....	42	8	35
Metal polishers.....	37	13	26
Molders.....	42	6	27
Plumbers and steam fitters.....	34	9	83
Teamsters.....	28	2	30
Tailors.....	26	1	14
Street-railway employees.....	22	2	27
Painters.....	20	4	61
Sheet-metal workers.....	21	2	13
Electrical workers.....	20	.....	9
Weavers.....	19	1	4

The following table shows the number of strikes and lockouts in 1914 and 1915 by States and by sections of the country; on account of their incompleteness the figures for the two years do not admit of close comparison:

NUMBER OF STRIKES, BY STATES AND SECTIONS, 1914 AND 1915.

State or section.	1914		1915		State or section.	1914		1915	
	Strikes.	Lock-outs.	Strikes.	Lock-outs.		Strikes.	Lock-outs.	Strikes.	Lock-outs.
Alabama.....	6	1	1	2	North Carolina.....	3	.....	3	.....
Alaska.....	1	.....	.....	.....	North Dakota.....	1	1	1	.....
Arizona.....	3	.....	4	1	Ohio.....	86	5	115	18
Arkansas.....	4	4	2	1	Oklahoma.....	6	.....	5	1
California.....	49	4	21	6	Oregon.....	8	.....	6	1
Colorado.....	7	3	4	.....	Pennsylvania.....	102	5	148	15
Connecticut.....	20	1	141	8	Porto Rico.....	2	.....	7	1
Delaware.....	4	.....	14	.....	Rhode Island.....	13	1	22	2
Dist. of Columbia.....	2	.....	1	.....	South Carolina.....	3	.....	4	.....
Florida.....	3	.....	.....	.....	South Dakota.....	1	.....	1	.....
Georgia.....	12	1	9	2	Tennessee.....	14	1	4	3
Idaho.....	1	.....	.....	.....	Texas.....	30	5	9	.....
Illinois.....	84	11	52	21	Utah.....	9	.....	6	.....
Indiana.....	38	7	21	9	Vermont.....	2	.....	5	1
Iowa.....	11	5	11	2	Virginia.....	5	.....	9	.....
Kansas.....	4	1	6	1	Washington.....	45	8	25	5
Kentucky.....	15	1	14	.....	West Virginia.....	12	2	23	3
Louisiana.....	.9	1	3	1	Wisconsin.....	39	4	15	5
Maine.....	11	.....	6	.....	Wyoming.....	.....	.....	1	.....
Maryland.....	18	1	11	1	In several States.....	4	.....	1	.....
Massachusetts.....	96	3	131	7	Total.....	1,100	104	1,246	150
Michigan.....	27	9	29	3	North of the Ohio and east of the Mississippi.....	793	61	1,024	124
Minnesota.....	19	5	11	3	South of the Ohio and east of the Mississippi.....	.....	.....	.....	.....
Mississippi.....	1	.....	1	.....	West of the Mississippi.....	76	6	75	12
Missouri.....	28	5	37	4	.....	231	37	147	23
Montana.....	10	.....	3	.....	.....	.....	.....	.....	.....
Nebraska.....	3	.....	2	.....	.....	.....	.....	.....	.....
Nevada.....	2	.....	.....	.....	.....	.....	.....	.....	.....
New Hampshire.....	7	.....	5	.....	.....	.....	.....	.....	.....
New Jersey.....	71	3	100	9	.....	.....	.....	.....	.....
New York.....	150	6	196	22	.....	.....	.....	.....	.....

The largest number of disputes occurred in the leading manufacturing States, New York, Pennsylvania, Connecticut, Massachusetts, and Ohio, having 801, or considerably more than half the strikes and lockouts shown for 1915.

The following table shows the number of strikes and lockouts in cities in which 10 or more disputes occurred during 1915, with the number of disturbances occurring in the same city for the year 1914. Allowance for incompleteness of data should be made in comparing the two years.

CITIES IN WHICH 10 OR MORE STRIKES OCCURRED IN 1914 AND 1915.

City.	1915		1914	City.	1915		1914
	Strikes.	Lock-outs.	Strikes and lock-outs.		Strikes.	Lock-outs.	Strikes and lock-outs.
New York, N. Y.....	127	15	74	Hartford, Conn.....	15	1	3
Bridgeport, Conn.....	51	2	3	New Haven, Conn.....	16	.....	2
Philadelphia, Pa.....	36	6	19	St. Louis, Mo.....	14	2	9
Chicago, Ill.....	25	15	24	Newark, N. J.....	13	2	9
Cleveland, Ohio.....	32	3	18	Wilmington, Del.....	13	.....	2
Boston, Mass.....	26	3	27	Kansas City, Mo.....	11	2	17
Springfield, Mass.....	22	1	6	Seattle, Wash.....	11	2	5
Worcester, Mass.....	20	2	8	Baltimore, Md.....	11	1	14
Pittsburgh, Pa.....	21	.....	20	Wheeling, W. Va.....	12	.....	1
Toledo, Ohio.....	16	4	8	Waterbury, Conn.....	11	.....	1
Detroit, Mich.....	16	3	22	Trenton, N. J.....	10	1	9
Elizabeth, N. J.....	17	.....	2	Cincinnati, Ohio.....	9	2	11
Jersey City, N. J.....	16	1	5	Reading, Pa.....	9	2	3

20 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES, 1915.

STRIKES.

States, etc.	Agricultural workers.	Building trades.										Painters.
		Bakers.	Bartenders.	Brass and brass goods workers.	Brewery workers.	Brickmakers.	Broom and brushworkers.	Bricklayers.	Carpenters.	Electrical workers.	Lathers.	
Arkansas												
Colorado		1										1
Connecticut		1		8	2			2	1	1	1	1
Delaware			1		1							
District of Columbia					1							
Illinois		3	1				2		1			1
Indiana		1							1			
Iowa							1		1	1		
Louisiana									1			
Maryland		2										
Massachusetts	1	4			1					3	2	4
Minnesota										3		
Missouri		1							1	2		1
Montana		1									1	
Nebraska											2	
New Hampshire									1			
New Jersey		3		1					2		2	
New York		8		2			1		4	2		1
North Carolina												1
North Dakota	1											
Ohio			1	1	1	2		1	6	2		3
Oklahoma									1			
Oregon		1				1						
Pennsylvania		1	2		3				13	4	2	4
Porto Rico	1	2							3			1
Rhode Island									1			
Tennessee								1				
Texas		1										
Utah										1		
Virginia			1		3					1		
Washington					1							
West Virginia									2		2	1
Wisconsin					1				3			
Total		3	30	6	12	15	6	2	3	42	20	5
												20

LOCKOUTS.

California		1										1
Connecticut		2										
Georgia												
Illinois		6										1
Indiana												
Iowa												
Kansas												
Massachusetts		2										
Missouri		1										
New Jersey		4										
New York		10								1		
Ohio												2
Pennsylvania		4							1			
Porto Rico		1										
Tennessee			1									
Washington		1										
Wisconsin		1										
Total		33	1						8		1	4

¹ Hod carriers. ² Building laborers. ³ Including 2 of glaziers. ⁴ Including 1 of paper hangers.

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES, 1915—Continued.

STRIKES.

States, etc.	Building trades—Concluded.							Car- riage and wag- on work- ers.	Chem- ical work- ers. ¹	Clothing.			
	Plas- ters.	Plum- bers and steam fitters.	Sheet metal work- ers.	Struct- ural iron work- ers.	Tile lay- ers.	Tin- smiths.	Oc- cu- pa- tion not spec- ified.			Boot and shoe mak- ers.	But- ton mak- ers.	Cloak, waist, and skirt mak- ers.	Cor- set mak- ers.
Arkansas		1											
California	1							1		1			
Connecticut		1	2	1				1	1	1			5
Delaware		1	2		2			2		1			
Georgia		1			1				1				
Illinois	2	2			1				3				
Indiana		2				1					1		
Iowa	1	1	1										
Kentucky					1								
Maine		1									1		
Massachusetts		3	1					7		1	1	2	1
Michigan	2				1						1		
Minnesota					1			1			1		
Missouri		2	1					1			1		
Montana								1					
New Hampshire											1		
New Jersey		2	1				1	2		14			1
New York		1	1		1					2	2	1	
Ohio		5	2	1				8	1	1			
Oklahoma		1											
Pennsylvania		4	3	1				3	1	2	1		
Rhode Island		1	2										
Tennessee		1											
Texas			1					1					
Utah		1											
Washington			1					1				1	
West Virginia			3					2					
Wisconsin					1								
Total	4	34	21	7	5	3	33	3	21	10	3	4	6

LOCKOUTS.

Alabama		1											
California			1				1						1
Illinois		1	1										
Indiana		1											
Iowa	1												
Kentucky		1											
Minnesota		1											
New York	1		1										
Ohio		1								1			
Pennsylvania		1											
Tennessee		1											
Washington		1											
Total	2	9	2		1					1		1	

¹ Includes bleachers, soap makers, paint makers, powder makers, refiners, etc.² Including 1 of plumbers.³ Comprising 1 of plumbers and 2 of steam fitters.⁴ Coppersmiths.⁵ Plumbers.⁶ Including 3 of plumbers and 1 of steam fitters.⁷ Including 1 of coppersmiths.⁸ Automobile workers.⁹ Comprising 3 of plumbers and 1 of steam fitters.¹⁰ Steam fitters.

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES,
1915—Continued.

STRIKES.

States, etc.	Clothing—Concluded.								Coop- ers.	Elec- tric and gas sup- ply work- ers.	Freight handling and teaming.		
	Glove mak- ers.	Hat and cap mak- ers.	Rain- coat mak- ers.	Shirt mak- ers.	Chil- dren's dress mak- ers.	La- dies' cloth- ing mak- ers.	Men's cloth- ing mak- ers.	Tail- ors.			Freight han- dlers.	Long- shore- men.	Team- sters.
California.....						1		3					
Connecticut.....						1	1	2		5	3	1	
Illinois.....	1					2	2	2					3
Kansas.....									1				
Kentucky.....								1					
Maryland.....						1		1	1			1	
Massachusetts.....			1	1			2	2	2		6		1
Michigan.....								1				1	
Minnesota.....									1			1	
Missouri.....								1				4	
New Jersey.....	1	1	19	3		4	20	12	9	2		4	2
New York.....	1	1	19	3		4	20	12	9		4	6	5
Ohio.....													5
Oregon.....									2			2	
Pennsylvania.....					2	1			2			2	4
South Dakota.....								1					
Texas.....													1
Virginia.....									1				
Washington.....									1			1	
West Virginia.....													1
Wisconsin.....								1					1
Total.....	2	20	4	2	4	25	21	26	7	5	17	15	28

LOCKOUTS.

Illinois.....							1						1
Maryland.....							1						
Massachusetts.....							2						1
Missouri.....													
New York.....						1	2		1				
Ohio.....								1					
Washington.....												1	
Wisconsin.....	1												
Total.....	1					1	5	2	1			1	2

¹ Including 15 of millinery and straw hat workers.² Shirt ironers.

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES, 1915—Continued.

STRIKES.

States, etc.	Furniture workers.			Glass workers.	Hardware workers.	Horse-shoers.	Iron and steel workers.	Laundry workers.	Leather workers.	Lumber and timber workers.	Metal trades.	
	Cabinet makers	Up-holsterers.	Oc- cu-pa- tion not spec- ified.								Black-smiths.	Boil- er mak- ers.
Alabama.												1
Arizona.												1
California.												
Connecticut.	2		1		8		3	4				1
Delaware.												1
Illinois.	1	2								1		1
Indiana.			1					1				
Iowa.	1							1			1	
Kansas.								1				
Kentucky.						1	2					
Louisiana.												1
Maryland.							1					
Massachusetts.	1						4					
Michigan.			2								1	
Missouri.			1					3				3
New Jersey.		1	2			1	7		1		3	
New York.	5	2	1				2		4		2	1
Ohio.	1			2			6	3				2
Oregon.		2		1	3		1			1		
Pennsylvania.		2										
Rhode Island.											1	
Texas.												1
Virginia.												1
Washington.										9		2
West Virginia.					1			4			1	
Wisconsin.										2		1
Total.....	6	3	7	14	11	2	30	15	5	13	7	9
												13

LOCKOUTS.

California.					1							
Illinois.	2											
Indiana.				1								
Louisiana.												1
New Jersey.											1	
New York.	1	1										
Ohio.								1			1	2
Oklahoma.												1
Pennsylvania.					1							
Washington.				1						1		
West Virginia.								1				
Total.....	3	1		2		2		2		1	2	2
												3

24 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES,
1915—Continued.

STRIKES.

States, etc.	Metal trades—Concluded.					Occupation not specified.	Miners.		Musicians and theatrical employees.			Paper makers.	Paper goods makers.
	Machinists.	Metal polishers.	Molders.	Pattern makers.	Stove mounters.		Coal.	Ore.	Moving picture operators.	Orchestras.	Stage employees.		
Arizona									3				
California		1											
Connecticut	38	16	3				1						2
Delaware	2						4						
Georgia	3												
Illinois	3	3	1			1		2					
Indiana	4	1	1			1		2					
Kansas	1								3				
Kentucky	3							5					
Maine												1	1
Maryland	1			1	1								
Massachusetts	26	1	10	1			1						2
Michigan	8	5	4										
Minnesota			2										
Missouri	4	1							3				
New Jersey	13	2	1							1			
New York	18	2	5	1					1		1	2	10
North Carolina	1												
Ohio	18	5	3	1				8		1	2		
Oklahoma								1	1				1
Oregon													1
Pennsylvania	13		7	1	1			29	1				
Rhode Island	4		2	1									
Tennessee			1										
Texas	1										1		
Utah										1			
Virginia	1												2
Washington								1					
West Virginia									4				
Wisconsin	1		1						1				
Wyoming													
Total	163	37	42	6	3	7	55	10	5	3	7	14	4

LOCKOUTS.

Alabama	1												
Arkansas													
Connecticut		4	1	1					1				
Illinois	1	3											
Indiana	1	2	1										1
Massachusetts	3												
Michigan	1	1											
New Jersey		2											
New York	1		2										
Ohio	5	1	1										1
Oregon													1
Pennsylvania	2		1							1			
Tennessee								1		1			
Washington													
Wisconsin	1												1
Total	16	13	6	1				2		2		3	1

¹ Including 12 of silver workers. ² Including 1 of bandsmen. ³ Including 1 of silver workers.

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES, 1915—Continued.

STRIKES.

States, etc.	Pot- ters.	Print- ing and pub- lish- ing.	Rail- road trans- por- ta- tion.	Rub- ber work- ers.	Sta- tion- ary engi- neers and fire- men.	Stone workers.		Street and sewer em- ploy- ees.	Street rail- way em- ploy- ees.	Tele- graph and tele- phone oper- ators.	Textile workers.	
						Gran- ite cut- ters.	Quar- ry work- ers.				Car- pet mak- ers.	Cot- ton and wool- en- work- ers.
California.....						2	1	1	1	1		
Connecticut.....			2	7		2	1					1
Delaware.....								1				
Georgia.....					1							
Illinois.....		2							1			
Indiana.....							2		1			
Iowa.....									1			
Louisiana.....	1											
Maine.....								1				1
Maryland.....								1				
Massachusetts.....		1						1		4		
Michigan.....	2								1			
Missouri.....	1							1		1		
New Hampshire.....						2	1					
New Jersey.....	3	1	1	2								1
New York.....	3	1	5		2			4	5	1		
Ohio.....	4						2	1	1			
Pennsylvania.....			2				1		6		3	2
Rhode Island.....									1			
South Carolina.....									1			
Utah.....	1						1	1				
Vermont.....							1	3				
Virginia.....						1						
Washington.....									1			
West Virginia.....						1						
Wisconsin.....						2	1	1				
Not specified.....			1									
Total.....	8	4	17	9	5	10	9	10	22	3	3	5

LOCKOUTS.

California.....										1		
Georgia.....			1									
Iowa.....											1	
Michigan.....		1										
Minnesota.....	2											
Missouri.....						1						
Pennsylvania.....										1		
West Virginia.....	4									1		
Wisconsin.....						1						
Total.....	1	3	1	1	1					2	2	

¹Wireless operators.
²Paving cutters.

³Aluminum reduction workers.
⁴Porcelain workers.

26 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES, 1915—Concluded.

STRIKES.

States, etc.	Textile workers—Concluded.								To-bacco workers.	Trunk and bag makers.	Waiters, cooks, and bartenders.	Miscellaneous workers.
	Dyers.	Hosiery and knit goods workers.	Lace workers.	Print cutters.	Silk workers.	Spinners.	Weavers.	Occupation not specified.				
California.....											1 1	
Connecticut.....	2	1			1							5
Delaware.....				1								
Georgia.....												1
Iowa.....												1
Illinois.....	1									1	1 1	4
Indiana.....												2
Kentucky.....										1		
Maine.....								1				
Massachusetts.....		3				3	8	6			2 2	12
Mississippi.....												1
Missouri.....	1										1 2	1
Nebraska.....												1
New Hampshire.....							1	1				
New Jersey.....	1				8					3	1	2
New York.....	1			1							1 1	8
North Carolina.....					1							
Ohio.....								1			1 5	6
Pennsylvania.....	2	2						6	3	1	1	5
Porto Rico.....										1		
Rhode Island.....	1	1				1	2	2				1
South Carolina.....							1	2				
Tennessee.....								1				
Texas.....												2
Vermont.....												1
Washington.....												3
West Virginia.....												1
Wisconsin.....												1
Total.....	7	8	1	3	9	4	19	18	8	2	12	58

LOCKOUTS.

Arizona.....											1	
Illinois.....								1				
New Jersey.....					2							
Pennsylvania.....				1								
Rhode Island.....			2									1
Vermont.....												
Total.....			2	1	2		1	1		1	1	1

¹ Waiters.

² Comprising 1 of waiters and 1 of bartenders.

³ Comprising 2 of waiters and 3 of waiters and bartenders.

⁴ Waiters and cooks.

STRIKES REPORTED BY THE AMERICAN FEDERATION OF LABOR, 1914-15.

At the annual meeting of the American Federation of Labor in November, 1915, a statement was made in regard to the number of strikes occurring during the year preceding the meeting. This statement was made up from reports filed by the individual unions that compose the Federation. The total number of these disturbances and their results were as follows. The figures for the preceding year are also given.

Result.	1914-15	1913-14
Won.....	552	543
Compromised.....	115	118
Pending.....	218	236
Lost.....	119	60
Total.....	1,004	957

In using the following statement for 1914-15, it must be borne in mind that the report is entirely by unions, and not by occupations, that no strikes are included in which the members were not connected with unions affiliated with the Federation, that only strikes officially recognized by the national bodies are included, that where no strikes are given for a union it means that that union made no report, that the year covered in this report ended some time before the 1st of November, and that the list includes some strikes in Canada as well as in the United States. This latter number is probably small, since the Canadian Department of Labor reports that only 43 strikes occurred in Canada during 1915.

STRIKES IN SPECIFIED UNIONS, AND THEIR RESULTS, AS REPORTED BY THE AMERICAN FEDERATION OF LABOR, 1914-15.

Unions.	Number of strikes and lockouts—					Number of persons involved.
	Won.	Com- pro- mised.	Pend- ing.	Lost.	Total.	
American Federation of Labor locals.....	8	10	5	3	26	4,837
Asbestos workers.....	4				4	400
Barbers.....						344
Billposters.....			1		1	15
Blacksmiths.....	1				1	75
Boiler makers.....	1	1	3	2	7	1,048
Bookbinders.....			1		1	
Boot and shoe workers.....	3				3	164
Brewery workers.....	11	7	8	2	28	3,726
Brick, tile, and terra-cotta workers.....	1		1		2	
Broom makers.....	3			1	4	80
Brush makers.....			2	1	3	35
Carpenters, Brotherhood.....	12	2	1	1	16	16,200
Carvers, wood.....	6	1		1	8	24
Cigar makers.....	3	1	8	3	15	925
Cloth hat and cap makers.....	20		2	9	40	600
Commercial telegraphers.....			1	1	2	200
Coopers.....	3		1		4	140
Electrical workers.....	11	3	3	2	19	3,760
Elevator constructors.....	1				1	55
Engineers, steam.....	6		5	4	15	59
Firemen, stationary.....	11	3	2		16	864
Foundry employees.....	1				1	180
Fur workers.....	8				8	10,000
Garment workers, United.....	5			2	7	700
Garment workers, ladies'.....	6	2	2		10	5,500
Glass workers, flint.....			6		6	589
Glove workers.....	1		1	1	3	1,930
Granite cutters.....	17		7		24	5,000
Hod carriers.....	14		1		15	2,000
Horseshoers.....	1		1		2	281
Hotel and restaurant employees.....	62	10	9	9	90	2,090
Iron and steel workers.....	3			3	6	1,200
Lace operatives.....			2		2	200
Lathers.....	2				2	1,400
Laundry workers.....	7	4	2	1	14	320
Leather workers on horse goods.....			2		2	15

¹ Lockout.

STRIKES IN SPECIFIED UNIONS, AND THEIR RESULTS, AS REPORTED BY THE AMERICAN FEDERATION OF LABOR, 1914-15—Concluded.

Unions.	Number of strikes and lockouts—					Number of persons involved.
	Won.	Com- pro- mised.	Pend- ing.	Lost.	Total.	
Lithographers.....				1	1	80
Longshoremen.....	12	2		1	15	6,000
Machine printers and color mixers.....			3		3	40
Machinists.....	43	7	51		101	11,500
Maintenance of way employees.....				1	1	
Meat cutters and butcher workmen.....				1	1	343
Metal polishers.....	30	5	15	3	53	720
Metal workers, sheet.....	7	3	2	4	16	500
Mine workers, United.....	1				1	13,000
Miners, Western Federation of.....	1	1	1		3	7,000
Molders, iron.....				20	20	1,091
Pattern makers.....	12		4		16	166
Paving cutters.....	5				5	250
Photoengravers.....	1			1	2	
Plasterers.....	26	1			27	2,177
Plumbers and steam fitters.....	39	6	13		58	2,755
Potters, operative.....			2		2	90
Printing pressmen.....	1				1	18
Pulp and sulphite workers.....				1	1	650
Quarry workers.....				1	1	1,600
Railway carmen.....	1				1	40
Railway employees, street.....	10		1	1	12	20,980
Slate and tile roofers.....			1		1	140
Spinners.....	3				3	150
Stage employees, theatrical.....	60	10	10		80	550
Stone cutters.....	1	1			2	100
Stove mounters.....	2		2		4	90
Tailors.....	4	1	5		10	50
Teamsters.....	24	2			26	3,600
Textile workers.....	10	26	1		37	5,226
Tile layers.....	3	1		1	5	250
Timber workers.....				55	55	
Travelers' goods and leather novelty workers.....	5				5	300
Typographical Union.....	3		6	3	12	295
Upholsterers.....	7	5	1	2	15	225
Total.....	552	115	218	119	1,004	144,932

¹ In strikes pending.² Lockouts.

NEW STREET RAILWAY WAGE AGREEMENTS IN WASHINGTON, D. C.

Following a dispute concerning rates of wages, hours of labor, and working conditions, and a two days' strike—March 5 and 6—on the two street railway lines in Washington, D. C., conciliation was affected by the Hon. Oliver P. Newman, president of the Board of Commissioners of the District of Columbia, and Mr. William Blackman, acting as a conciliator for the United States Department of Labor, whereby the employees returned to work pending conferences between the company officials and committees of their employees. Agreements were reached March 11 by the officials and employees of both companies, which agreements are here set forth. The agreement between the Washington Railway & Electric Co. and its employees is presented verbatim:

AGREEMENT.

WASHINGTON, D. C.,

March 11, 1916.

For the purpose of settling all controversies now existing between the Washington Railway & Electric Co. and its employees, it is hereby agreed:

That the following employees shall be reinstated to their former positions (23 names):

For the adjustment of grievances which may arise in future, the committee which signs this agreement shall be constituted a grievance committee, with power to fill any vacancies which may occur in the committee hereafter. Should any question arise under this agreement as to the true intent and meaning thereof, or as to justice in the action of the company in discharging or disciplining any employee, or any grievances which can not be adjusted by conference between the interested employee and the officials of the company, or by the said officials and the grievance committee, then such question upon application of the grievance committee shall be referred for decision to the Public Utilities Commission of the District of Columbia as a board of arbitration, whose decision shall be final.

It is agreed that the members of the grievance committee shall be granted leave of absence on grievance business when such leave should be required, provided that in cases of extraordinary requirements in service leaves of absence should not be requested or granted.

1. *Hours and conditions of work.*—It is agreed that at least eight hours continuous rest will be allowed each conductor and motorman between the termination of his run on one day and the beginning of his work on the following day, except in cases of unusual traffic demands due to extraordinary conditions. No regular man shall be required to perform extra duty when an extra man is available, and where motormen and conductors are called to report for extra duty, and for any cause not their own, they do not go out within one hour they shall be paid from the end of said hour until relieved at their regular rate of wages. When men are asked to report for snow-plow or sand-car work they shall be paid from the time of reporting until relieved from duty.

2. *Wages.*—The wages of all motormen and conductors shall be as follows:

	Cents per hour.
First year.....	23½
Second, third, fourth and fifth years.....	24½
Sixth, seventh, eighth, ninth, and tenth years.....	25½
After 10 years of service.....	27

The present practice in the assignment of runs shall be continued.

3. It is understood and agreed that this agreement constitutes a full settlement of all controversies now existing between the company and its employees.

4. This agreement shall be binding upon the company and its employees for a period of one year from date.

The wage increase provided for herein shall be effective on and after March 15, 1916; other provisions of this agreement which differ from the present practice of the company shall be put into effect at the earliest possible date, and not later than April 15, 1916, this to permit the necessary changes and adjustments in existing schedules and regulations.

The above agreement was signed by the president of the company and a committee of three employees and attested by the president of the Board of Commissioners of the District of Columbia.

The agreement of the Capital Traction Co. is nearly the same as that of the Washington Railway & Electric Co. Five men to be reinstated are named in the agreement. In the paragraph on hours and conditions of work the words, "and where motormen and conductors are called to report for extra duty, and for any cause not their own they do not go out within one hour they shall be paid from the end of said hour until relieved at their regular rate of wages," do not appear in the Capital Traction agreement, while the agreement of that company contains the following:

The present practice in the assignment of runs and in the method of payment of conductors and motormen called to report for extra duty shall be continued.

The wages for the Capital Traction Co. also differ slightly from those of the Washington Railway & Electric Co., the scale being:

	Cents per hour.
First year.....	23½
Second, third, and fourth years.....	24½
Fifth and sixth years.....	25½
Seventh, eighth, and ninth years.....	26½
Tenth year and over.....	27

For more than a year the United States Bureau of Labor Statistics has been compiling a voluminous report concerning wages, hours of labor, and working conditions in street railway operation in the United States. Data were collected by special agents of the Bureau in 81 cities, and much material has been collected by correspondence from other cities. The figures taken were for a pay period in 1914. The report has required a great amount of labor in compilation and is not yet entirely finished. As a part of this study, data were obtained for the two companies in Washington, D. C. The wage scales for these companies are here given in advance.

According to the scale of the Capital Traction Co., all motormen and conductors were paid a flat rate of 22.5 cents an hour. Under a merit system, based on satisfactory service, this company has also paid annually on July 1 a bonus, varying in amount according to the number of years of satisfactory service completed before that date, as follows: \$25 after one year, \$50 after two to four years, \$75 after five to nine years, and \$100 after ten years. An employee is not paid a bonus if his service is unsatisfactory during the 12 months immediately preceding the date of the annual bonus payments, but credit for preceding years of good service is revived by a subsequent year of good service.

The following table shows the hourly rate of pay of employees, classified as to period of service as of November, 1914, with allowances added for bonus payments as of July 1, 1914. Employees are

off duty an average of one day in eight and have two weeks' vacation each year, during which they receive no pay. Assuming 300 full working days of 10 hours each a year, the hourly rate equivalent of the bonus was computed and added to the flat rate of 22.5 cents to ascertain the full rate for employees who received bonuses. This gave a rate of 23.3 cents per hour for those receiving a \$25 bonus, 24.2 cents for those receiving \$50, 25 cents for those receiving \$75, and 25.8 cents for those receiving \$100. For purposes of comparison the table also shows the scale of March 11, 1916.

HOURLY WAGES, INCLUDING BONUSES, OF MOTORMEN AND CONDUCTORS OF THE CAPITAL TRACTION CO. IN NOVEMBER, 1914, AND RATES UNDER SCALE OF MAR. 11, 1916.

Period of service.	Rate of pay per hour, including bonus, Nov., 1914.	Number of employees at each rate.				Per cent of employees of specified years of service or less.				Rate per hour under scale of Mar. 11, 1916.	
		Motormen.		Conductors.		Motormen.		Conductors.			
		Regu- lar.	Extra.	Regu- lar.	Extra.	Regu- lar.	Extra.	Regu- lar.	Extra.		
First year.....	\$0.225	38	45	75	49	15	70	29	75	\$0.23½	
Second year.....	{ .225 .233 .225	24 6 16	6 1 1	35 11 19	4 3 1	26	81	47	86	.24½	
Third year.....	{ .233 .242 .225 .233	7 6 1 3	----- 2 2 -----	18 4 2 6	1 2 1 -----	38	86	64	91	.24½	
Fourth year.....	{ .242 .225 .233	11 2 1	----- 2 1	8 2 1	----- ----- 1	44	91	70	94	.24½	
Fifth year.....	{ .233 .242 .225	1 13 1	----- 12 1	----- 1 2	----- 1 -----	50	91	75	95	.25½	
Sixth year.....	{ .242 .250 .225	13 3 1	----- 1 1	10 6 1	----- ----- 1	57	94	82	95	.25½	
Seventh year.....	{ .242 .250	7 6	----- 5	5 5	----- -----	62	94	87	95	.26½	
Eighth year.....	{ .225 .250	1 14	----- 5	1	----- -----	68	94	89	97	.26½	
Ninth year.....	{ .225 .250 .225	1 8 5	----- 4 2	1 1 -----	----- 1 -----	72	94	90	98	.26½	
Tenth year and over.....	{ .233 .242 .250 .258	1 1 12 54	----- ----- 6 2	19 1 6 1	----- ----- ----- 1	100	100	100	100	.27	
Total and average:											
Motormen, regular.....	.240	257	-----	-----	-----	-----	-----	-----	-----		
Motormen, extra.....	.227	-----	64	-----	-----	-----	-----	-----	-----		
Conductors, regular.....	.234	-----	-----	255	-----	-----	-----	-----	-----		
Conductors, extra.....	.227	-----	-----	-----	65	-----	-----	-----	-----		

To make clear the information contained in this table, take the "Third year" as an illustration: The flat rate of 22.5 cents per hour was received by 16 regular motormen, 1 extra motorman, and by 19 regular conductors; that is, these men received no bonus. The lowest bonus, \$25, was paid to 7 regular motormen, 18 regular conductors, and 1 extra conductor, making their hourly rate 23.3 cents. The next higher bonus of \$50 per year (making the hourly

rate 24.2 cents) was paid to 6 regular motormen, 4 regular conductors, and 2 each of the extra conductors and motormen. These were all third-year men. The table is to be read in similar manner for fourth, fifth, etc., year men, bearing in mind that the numbers listed as receiving 25 cents per hour were those receiving a \$75 bonus and those receiving 25.8 cents were those getting the \$100 bonus. The company will discontinue these bonuses under the new agreement, which increases the rates for all employees by years of service to the amount stated in the last column of the table. Under the heading "Per cent of employees of specified years of service or less" are shown the per cent in each occupation who have worked for the company the stated period of service or less; for instance, 15 per cent of the regular motormen and 70 per cent of the extras had worked 1 year or less, 26 per cent of the regular motormen and 81 per cent of the extras had worked 2 years or less; and in the same manner it is shown that 47 per cent of the regular and 86 per cent of the extra conductors had worked 2 years or less.

The following table shows for the Washington Railway & Electric Co. the flat hourly rate of pay in May, 1914, and the rate including the hourly equivalent of the amount allowed in 1914 from the profit-sharing fund. For purposes of comparison the scale of March 11, 1916, is also given.

WAGE RATE OF MOTORMEN AND CONDUCTORS OF THE WASHINGTON RAILWAY & ELECTRIC CO. IN MAY, 1914, AND RATE UNDER SCALE OF MAR. 11, 1916.

Period of service.	Rate of pay per hour, May, 1914.	Number of employees at each rate.				Per cent of employees of specified years of service or less.				Rate per hour, including 1914 profits.	Rate per hour under scale of Mar. 11, 1916.		
		Motormen.		Conductors.		Motormen.		Conductors.					
		Reg- ular.	Ex- tra.	Reg- ular.	Ex- tra.	Reg- ular.	Ex- tra.	Reg- ular.	Ex- tra.				
First year.....	\$0.21 $\frac{1}{2}$	6	97	31	104	2	89	10	95	\$0.22 $\frac{1}{2}$	\$0.23 $\frac{1}{2}$		
Second to fifth year.....	1.22 $\frac{1}{2}$	127	10	154	4	44	98	62	99	.23 $\frac{1}{2}$	.24 $\frac{1}{2}$	
Sixth to tenth year.....	1.23 $\frac{1}{2}$	77	1	74	1	70	99	87	100	.24 $\frac{1}{2}$	.25 $\frac{1}{2}$	
After 10 years.....	1.25	91	1	40	.....	100	100	100	.....	.25 $\frac{1}{2}$	.27
Total and average:		.....				.....				.....
Motormen, regular.....		1.235	301	.....	.....	.....	.....	.....	.....	.....
Motormen, extra.....		1.216	.....	109	.....	.....	.....	.....	.....	.....
Conductors, regular.....		1.230	.....	299	.....	.....	.....	.....	.....	.....
Conductors, extra.....		1.216	.....	.....	109	.....	.....	.....	.....	.....

¹ In addition, employees received an allowance from a profit-sharing fund equivalent to approximately three-fourths of one cent per hour in the calendar year 1914.

The scales shown above have been in effect up to the present agreements.

The Washington Railway & Electric Co. has had a profit-sharing scheme for several years under which employees receive a sum each

year in addition to their wages. The sum has varied from year to year, and, hence, is included in the table given above for this company on the basis of the facts for the year 1914. This profit-sharing fund will be discontinued when the new agreement takes effect. The fund as heretofore administered is briefly described in a circular issued by the company, January 2, 1914, addressed to its conductors, motor-men, depot clerks, and starters. The circular reads:

Just a word as to what the profit-sharing plan really is: It was founded on the experience of the year 1911, when 26 per cent of our car earnings (less 4 per cent District of Columbia tax) was paid out for trainmen's wages, accidents, and damages; the company agreeing that should the 26 per cent amount to more than the said wages, accidents, and damages for 1912, the surplus should constitute a profit-sharing fund, and be distributed in cash at the end of the year. Under this plan each one-year man received on January 2, 1913, a check for \$28.72. To-day it gives to the same man \$42.53.

The figures are as follows:

Gross passenger receipts, less District of Columbia tax of 4 per cent.....	\$2,653,398
26 per cent appropriated for trainmen's wages and accidents.....	689,883
Accidents and damages.....	\$105,303
Disbursed for wages.....	554,499
	659,802
Profit-sharing fund.....	30,081

The 1914 profits distributed January 2, 1915, were \$15,527, with a payment of \$21.17 to each man in service a full year, and proportionate amounts for less than one year of service equivalent to an addition to the rate of wages of about three-fourths of a cent per hour.

The circular issued January 3, 1916, stated that "there is no profit-sharing fund for 1915," and gave the following figures and comment:

Gross passenger receipts, less District of Columbia tax of 4 per cent.....	\$2,653,678
26 per cent appropriated for trainmen's wages and accidents.....	689,956
Accidents and damages.....	\$139,330
Disbursed for wages.....	558,023
	697,353
Deficit.....	7,397

These are facts. What to do under the circumstances has been a problem. After careful consideration the management decided to appropriate the sum of \$15,527, the same amount as last year, and has directed its distribution in lieu of a profit-sharing fund.

In accordance with the plan announced as operative for 1915, those employees who have gone through the year with a clean record have had added to the amount of their checks the proportion deducted from the share of those who were suspended for violation of rules during the year.

Under this distribution, the payment to men in service one year or more (if not suspended during the year) was \$23.17 and a propor-

tionate amount to men in service less than one year, equivalent to approximately three-fourths of a cent per hour.

Irregularity in the amount of traffic in every city necessitates the operation of more cars at certain hours of the day than at other times. This gives rise to split or swing runs and trippers. Split runs are regular runs composed of two or more periods of duty with an interval or intervals of time between them. Trippers are extra cars put on at rush hours and are generally assigned to extra men; that is, men who are held available for irregular work.

The Bureau of Labor Statistics in its study of working conditions in the street-railway industry gathered data as to hours on duty per day on regular runs and spread of duty, or outside time, in which regular runs were made. Two tables are given below for the regular runs of the two Washington companies in 1914. One table relates to the hours on duty and the other to the outside time; that is, the time between the beginning and the end of the day's work. Trippers are not included in these tables.

NUMBER OF REGULAR RUNS, BY HOURS ACTUALLY ON DUTY.

[The Capital Traction Co. figures are for November, 1914, and the Washington Railway & Electric Co. figures for May, 1914.]

	Capital Traction Co.		Washington Railway & Electric Co.		
	Monday to Saturday.	Sunday.	Monday to Friday.	Saturday.	Sunday.
Number of runs in which the hours of actual duty were—					
Under 10.	173	214	74	63	100
10.	6	-----	6	4	3
Over 10 and under 10½.	24	16	91	83	69
10½ and under 11.	33	5	69	75	61
11 and under 11½.	12	2	47	54	25
11½ and under 12.	6	1	23	25	9
12 and under 12½.	5	-----	3	10	1
12½ and under 13.	1	-----	-----	4	-----
13 and under 13½.	-----	2	-----	4	-----
13½ and under 14.	-----	-----	-----	12	-----
14 and over.	-----	-----	-----	-----	-----
Total.	260	240	313	324	268
Per cent of runs with over 10 hours on duty.	31.2	10.8	74.4	79.3	61.6

¹ One 14-14½; one 14½-15.

Entirely apart from the question as to whether the men desired to work the longer hours or were required to do so these tables show that a large percentage of schedule runs required more than 10 hours per day of running or platform time. In the case of the Capital Traction Co. 31.2 per cent of all regular runs from Monday to Saturday required more than 10 hours of running time; Sunday runs were so arranged that 10.8 per cent required more than 10 hours.

The Washington Railway & Electric Co. required more than 10 hours for 74.4 per cent of its regular runs from Monday to Friday; 79.3 per cent of its Saturday and 61.6 per cent of its Sunday regular runs. By the terms of the new agreement 10 hours is to be the maximum of actual running time per day. The 10 hours' working time are to be completed within 16 hours under the new agreement. The table herewith presented shows the "spread of duty" or "outside time" in force prior to the strike of March 5, 1916.

NUMBER OF REGULAR RUNS, BY HOURS WITHIN WHICH COMPLETED.

[The Capital Traction Co. figures are for November, 1914, and the Washington Railway & Electric Co. figures for May, 1914.]

	Capital Traction Co.		Washington Railway & Electric Co.		
	Monday to Saturday.	Sunday.	Monday to Friday.	Saturday.	Sunday.
Number of runs completed within—					
Under 10 hours.....	119	211	14	14	84
10 and under 10½ hours.....	16	16	37	42	59
10½ and under 11 hours.....	24	6	25	27	40
11 and under 11½ hours.....	14	2	14	14	17
11½ and under 12 hours.....	11	1	17	13	18
12 and under 12½ hours.....	9	1	27	27	4
12½ and under 13 hours.....	4	—	37	43	8
13 and under 13½ hours.....	7	1	30	27	9
13½ and under 14 hours.....	—	—	13	12	6
14 and under 14½ hours.....	3	—	12	10	4
14½ and under 15 hours.....	23	2	7	7	3
15 and under 15½ hours.....	6	—	6	2	4
15½ and under 16 hours.....	13	—	8	11	1
16 hours.....	—	—	1	—	—
Over 16 and under 16½ hours.....	8	—	9	11	5
16½ and under 17 hours.....	1	—	16	19	3
17 and under 17½ hours.....	—	—	16	17	2
17½ and under 18 hours.....	2	—	13	14	1
18 hours and over.....	—	—	11	14	—
Total.....	260	240	313	324	268
Per cent of runs with outside time of over 16 hours.....	4.2	—	20.8	23.1	4.1

The Capital Traction Co. scheduled 4.2 per cent of its runs so that more than 16 hours were required to complete the day's work on those runs; though none of their Sunday runs required more than 16 hours. The Washington Railway & Electric Co.'s regular runs from Monday to Friday required more than 16 hours "outside time" in 20.8 per cent of the cases; 23.1 per cent of the Saturday regular runs; and 4.1 per cent of Sunday runs had more than 16 hours of "completed within" or outside time.

It will be noted that the agreement for a maximum of 10 hours work to be completed within 16 hours spread of duty, and 8 consecutive hours of rest will require a somewhat radical revision of the schedule of regular runs.

REGULARITY OF EMPLOYMENT IN OHIO, 1914.

Wages and hours of labor and the steadiness of employment in ordinary wage earning occupations and in commercial and office work have been the subject of an investigation made under the direction of the Industrial Commission of Ohio.¹

This study under review, which was prepared by the department of investigation and statistics, canvassed 14,776 employers in Ohio, who employ 779,929 employees. As a result of the investigation it appeared that on the whole wage earners in manufacturing establishments earned relatively less wages and suffered from more irregularity in employment than did employees in office and commercial positions. This was true of workers of both sexes. Thus less than \$12 per week was the rate of wages for 29.6 per cent of the adult male wage earners, but for only 19.7 per cent of the adult male bookkeepers, stenographers, and office clerks. And as higher wage groups are reached the difference in the proportion of the different classes of employees earning specified wages becomes even more marked. The rate of wages for 56.9 per cent of the adult male wage earners was less than \$15 per week, while only 34.2 per cent of the adult male bookkeepers, stenographers, and office clerks were in that class, and only 36.4 per cent of the adult salesmen; less than \$25 per week was the rate of wages for 94.1 per cent of the adult male wage earners, 77 per cent of the adult male bookkeepers, stenographers, and office clerks, and 79.6 per cent of the adult salesmen.

Remarkable regularity of employment, the report declares, is noted for bookkeepers, stenographers, and office clerks as compared with wage earners. On the other hand, no definite statement can be made as to the relative hours of labor for the different classes of occupation. According to industrial groups it appears, however, that the largest proportion of workers in agriculture, or 56.8 per cent, work 60 hours per week; in construction work the largest proportion, or 48.2 per cent, worked 48 hours and under per week; in manufactures the largest proportion, or 23 per cent, were found employed over 54 and under 60 hours per week; in the general industrial group "service," which includes restaurants, hotels, etc., the largest proportion, or 24.6 per cent, worked 54 hours per week; in those occupations coming under the general term "trade," which includes office and clerical help very largely, the largest proportion of employees within that group, or 28.5 per cent, worked 60 hours per week, while in transportation and public utilities the largest proportion, or 26.8 per cent, worked 54 hours per week.

¹ The Industrial Commission of Ohio. Department of Investigation and Statistics, Report No. 16: Rates of Wages, Hours of Labor, and Fluctuation of Employment in Ohio in 1914. Columbus, Ohio. 317 pp.

The report includes wage data for 779,929 employees, of whom 634,231 are males and 145,698 are females. Of the total number of males 98.4 per cent were 18 years of age and over, and of the females, 95.3 per cent. The number concerning whom information was secured, classified by three principal groups, was as follows:

NUMBER FOR WHOM WAGE DATA WERE SECURED.

Occupations.	Males.	Females.	Total.	Number 18 years of age and over.		
				Males.	Females.	Total.
Wage earners.....	582,031	101,710	683,741	573,245	96,181	669,426
Bookkeepers, stenographers, and office clerks.....	36,710	25,321	62,031	35,382	24,442	59,824
Sales people (not traveling).....	15,490	18,667	34,157	15,169	18,225	33,394
Total.....	634,231	145,698	779,929	623,796	138,848	762,644

In order to ascertain the relative wages of the three occupation groups concerned in the inquiry on the fairest basis the classified earnings of persons 18 years of age and over were ascertained, and are presented in the subjoined table. This table shows quite clearly that the relative earnings of bookkeepers, stenographers, office clerks, and sales people were somewhat better than those of wage earners in the industrial establishments of the State. A relatively lower percentage of the former in all instances earned less than a certain specified amount. The table follows:

PER CENT OF ADULT EMPLOYEES (18 YEARS AND OVER) EARNING LESS THAN SPECIFIED AMOUNTS PER WEEK.

Males.

Classified wages per week.	Wage earners.	Book-keepers, stenog-raphers, office clerks.	Sales people (not travel-ing).	Total.
Less than \$10.....	11.7	11.0	11.0	11.5
Less than \$12.....	29.6	19.7	19.0	28.6
Less than \$15.....	56.9	34.2	36.4	54.9
Less than \$18.....	76.0	53.5	56.7	74.0
Less than \$25.....	94.1	77.0	79.6	92.5

Females.

Less than \$6.....	21.4	7.0	20.1	18.7
Less than \$7.....	40.5	14.5	40.5	36.0
Less than \$8.....	58.4	24.1	55.3	52.0
Less than \$9.....	71.7	35.2	67.5	64.8
Less than \$10.....	82.4	45.0	74.8	74.9
Less than \$12.....	92.9	63.9	85.3	86.9
Less than \$15.....	97.9	82.0	92.5	94.5

Returns showing the number of persons employed on the 15th of each month were secured from 14,149 establishments and the results concerning fluctuations in employment were presented according to the three occupation groups adopted throughout the report. The fluctuation in employment was measured by the per cent of variation in the number employed as compared with the maximum month of the year.

The maximum number of wage earners employed in the 14,149 establishments in Ohio in 1914 was 576,394 in April, the minimum was 505,549, reported for December, "which means that if there was a complete exchange of employees between industries and between individual employers, there were 70,845 wage earners, or 12.3 per cent of the maximum number, out of employment at one time."

The maximum of employment for male wage earners was reached in April and the minimum in December, with a variation from the maximum of 13.2 per cent. The maximum of employment for female wage earners was reached in March and the minimum in December, with a variation of 9.3 per cent.

Comparing the results of the fluctuation in number of wage earners employed in manufacture in Ohio, as shown by the United States Census reports of 1910 for the year 1909, with those obtained in the present investigation, there is indicated a substantial agreement. Thus, all industries in 1909, according to the United States Census figures, showed a fluctuation of 13.8 per cent between the maximum and minimum number employed, while the study under review showed a fluctuation of 13 per cent. The canning and preserving industry, according to both reports, showed the largest fluctuation between the maximum and minimum number employed during the respective years—1909 and 1914—being 90.1 per cent according to the census figures and 87.3 per cent according to the investigation under review.

The general results of the Ohio investigation concerning fluctuation of employment are contained in the following table:

MAXIMUM AND MINIMUM EMPLOYMENT OF WAGE EARNERS IN SELECTED IMPORTANT INDUSTRIES IN 1914.

Industry.	Number of establish- ments re- porting.	Male wage earners.			Female wage earners.		
		Maximum number em- ployed.	Minimum number em- ployed.	Variation from maximum (per cent.).	Maximum number em- ployed.	Minimum number em- ployed.	Variation from maximum (per cent.).
CONSTRUCTION.							
Brick, stone, and cement work.....	266	4,240	1,763	58.4	.....	.....	.....
General contracting.....	682	16,353	7,566	53.7	.....	.....	.....
Street, road, and sewer contracting.....	233	8,504	1,954	77.0	.....	.....	.....
MANUFACTURES.							
Agricultural implements.....	41	5,081	2,970	41.5	.....	.....	.....
Automobiles, including bodies and parts.....	72	23,948	18,514	22.7	1,022	690	32.5
Blast furnace products.....	36	4,521	2,959	34.5	.....	.....	.....
Boots and shoes, including cut stock and findings.....	65	9,712	7,367	24.1	6,127	4,582	25.2
Bread and other bakery products.....	269	3,582	3,431	4.2	1,061	960	9.5
Brick and tile.....	212	9,032	5,995	33.6	.....	.....	.....
Canning and preserving fruits and vegetables.....	80	2,714	349	87.1	2,414	278	88.5
Carriages, wagons, and materials.....	200	5,781	4,314	25.4	256	154	39.8
Cash registers and calculating machines.....	6	5,675	4,004	29.4	475	381	19.8
Clothing, men's, including shirts.....	226	3,278	2,831	13.6	6,999	6,039	13.7
Clothing, women's.....	79	2,664	1,880	29.4	4,564	2,967	35.0
Copper, tin, and sheet-iron products.....	146	7,266	6,240	14.1	1,369	1,098	19.8
Cutlery and tools.....	49	4,244	3,141	26.0	341	258	24.3
Electrical machinery, apparatus and supplies.....	61	6,465	5,612	13.2	1,009	667	33.9
Foundry and machine shop products.....	778	64,760	54,115	16.4	822	674	18.0
Furniture and refrigerators.....	157	10,386	8,483	18.3	476	392	17.6
Gas and electric fixtures and lamps and reflectors.....	38	3,265	2,663	18.4	2,964	1,957	34.0
Glass.....	36	10,373	6,267	39.6	933	570	38.9
Hosiery and knit goods.....	39	812	648	20.2	3,459	2,768	20.0
Liquors, malt.....	111	5,885	4,708	20.0	.....	.....	.....
Lumber and planing mill products.....	433	10,262	8,373	18.4	.....	.....	.....
Paper and wood pulp.....	44	4,209	3,797	9.8	609	538	11.7
Pottery, terra cotta, and fire clay products.....	144	13,491	11,854	12.1	2,301	2,111	8.3
Printing and publishing.....	636	12,070	11,625	3.7	3,705	3,259	12.0
Rubber goods.....	41	22,500	16,595	26.2	2,646	2,048	22.6
Steel works and rolling mills.....	63	49,381	33,418	32.3	.....	.....	.....
Stoves and furnaces.....	90	8,008	6,818	14.9	.....	.....	.....
Tobacco manufactures.....	209	4,397	3,803	13.5	9,430	8,342	11.5
SERVICE.							
Hotels.....	166	3,467	3,288	5.2	2,054	1,979	3.7
Laundries and dry cleaners.....	237	2,225	2,127	4.4	4,767	4,326	9.3
TRADE.							
Retail and wholesale stores.....	2,708	17,010	16,231	4.6	5,190	4,133	20.4
TRANSPORTATION AND PUBLIC UTILITIES.							
Electric railroads.....	58	14,177	11,605	18.1	.....	.....	.....
Natural gas.....	50	4,820	2,494	48.3	.....	.....	.....
Telegraph and telephone.....	297	3,894	3,231	17.0	6,252	5,860	6.3

The report notes that the total figures for any single industry do not show fully fluctuations of employment, because a decrease in the number employed in any one industry may be offset by an increase in the number employed in another industry, and because it may or may not be possible for employees to pass with facility from one industry to another.

To show what may be disclosed as to fluctuations in employment there was made a more detailed analysis of the reports received from a limited class of establishments, and as a result there was found a considerable variation in the number employed in the course of the year. Thus the per cent of variation from the maximum number employed was 64.1 per cent in the case of male wage earners engaged in fertilizer manufacture and 32.3 per cent for those engaged in steel works and rolling mills; in clothing manufacture the variation was 29.4 per cent for male wage earners and 35 per cent for female wage earners. On the other hand, remarkable regularity of employment is noted for bookkeepers, stenographers, and office clerks as compared with wage earners. For bookkeepers, stenographers, and clerks the variation was 2.6 per cent for males and 1.8 per cent in the case of females. The number of salesmen showed a variation of 4.8 per cent and saleswomen a considerably higher variation, or 26.9 per cent.

COLLECTIVE BARGAINING IN THE ANTHRACITE COAL INDUSTRY.

Collective bargaining in the anthracite coal industry furnishes a striking example of the possibility of trade agreements and the peaceful settlement of labor disputes between a group of employers strongly united and a body of unskilled workers composed largely of recent immigrants inexperienced in collective action and untrained in American unionism. The basis for this development was established in the short period beginning with the strike of 1900 and ending with the arbitration of the Anthracite Coal Strike Commission in 1902-3. Out of this has grown a well-developed form of collective bargaining and an unusually efficient system of conciliation and arbitration of disputes.

The anthracite coal industry is peculiar in several respects: (1) Nearly all of the anthracite coal production of the United States is confined to five counties of Pennsylvania. (2) It is concentrated in its financial control. Seven large mining companies, which have been under the ownership and control of the anthracite coal-carrying railroads, and united in a community of interest which has been dominated by a group of financial interests in New York City,

produced over half of the anthracite coal and purchased the output of a large proportion of the independent operators. (3) The evolution in coal consumption has tended to give anthracite a market free from direct competition with bituminous, except in certain small sizes. (4) In spite of the geographical and industrial concentration of the industry, conditions of work differ greatly because of the pitch of the tunnels, the size and direction of the veins, the proportion of slate and sulphur in the coal, the methods of mining, etc., necessitating unusually elaborate systems of differential rates of pay.

The conditions under which collective bargaining was introduced and has been carried on in the anthracite field possess some features which are of special interest. Opposed to a highly concentrated control of the industry on the employers' side has been a mass of workers which had become more and more heterogeneous from the standpoint of race and nationality. A change in the racial composition of the mine workers occurred during the same period in which the concentration in the control of the industry was consummated. The introduction of the collective bargaining principle in their industrial relations came at the time when the employers were perhaps most united and the employees least homogeneous. The manner in which the trade agreement was established in the anthracite field was fundamentally different from the manner in which it was established in the bituminous industry. In the latter the trade agreement was the outgrowth of the efforts of the operators and miners themselves to settle their differences, and these efforts had extended over a long period of years. In the former the trade agreement was forced upon the operators by a body of workers, powerfully aided by popular opinion, in a very short period of time. The creation of a permanent board of conciliation for an entire industry as a method of settling disputes arising under agreements and of preventing strikes was unique, and the provisions for the adjudication of such disputes as could not be settled by conciliation by an umpire appointed by a Federal judge was a step far in advance of what had been done in the coal industry in this country, as well as in other industries of a national scope.

In spite of the fact that on three occasions—in 1906, 1909, and 1912—when new agreements were negotiated, obstacles in the way of maintaining peaceful relations appeared to be serious, the relations between employers and employees have been maintained without a break. Although there have been elements and factors which naturally would seem to be peculiarly unfavorable to collective bargaining and the preservation of industrial peace, a habit of collective bargaining has been established, fairly well recognized precedents in

the manner of negotiating agreements have grown up, and a system of settling disputes and grievances, which has so far been successful in continuing and furthering peaceful relations and avoiding conflicts, has been developed.

The development of a system of collective bargaining in the anthracite coal industry and the results secured may be briefly summarized. The earliest attempts on the part of mine workers, beginning in 1848 and continuing until 1888, to secure a permanent basis for trade agreements were unsuccessful. From 1888 until 1900 no further attempts were made. In 1899 the United Mine Workers of America entered the anthracite field and began organizing the mine workers, and in the following year the first great strike occurred, which resulted in a wage increase and certain other concessions from the operators. The 1900 strike was a preliminary struggle, in the sense that it enabled the union to increase its strength in the anthracite fields and to educate the mine workers in unionism. In 1902 the second great strike occurred, which had for its main object the recognition of the United Mine Workers of America and the making of a trade agreement. As in the case of the 1900 strike, the operators were forced by public opinion as well as by other considerations to recede from their position of refusing to make any concessions, and in the fall of 1902 they agreed to arbitration by a commission appointed by the President of the United States. This body, the Anthracite Coal Strike Commission, announced its awards early in 1903. The awards provided for certain wage increases, reductions in hours, and changes in other working conditions, and for a system of conciliation and arbitration of disputes arising during the period of three years for which the awards were to be in force. The commission contemplated in its plan of conciliation and arbitration, as well as in its findings in general, the establishment of a permanent basis for better relations between employers and employees in the industry. Its work apparently laid such a foundation, as subsequent history of industrial relations in the anthracite field has so far shown.

In the three agreements that have been made in the industry since the expiration of the awards in 1906 several tendencies appear. While the principal issues of wages, hours, recognition of the union, and questions connected with the presence of a union and methods of settling disputes have been brought up in each series of negotiations, there have been: (a) A tendency to amend the awards of 1903 with more freedom in each agreement; (b) a tendency toward more businesslike methods in negotiations and toward a better understanding between the representatives of the bargaining parties; (c) a tendency to grant more complete recognition of the union as a party to agreements. On only one occasion (in the agreement of

1912) has an increase in wages been stipulated, and the provisions of the agreements have, in so far as they have gone beyond a mere continuance of the 1903 awards, related principally to methods of settling disputes and grievances.

The system of settling disputes and grievances provided by the awards of the Anthracite Coal Strike Commission has been considerably modified by adding machinery for the conciliation of disputes at the collieries where they occur and in the districts in which the collieries are located. The most important change of this character was the provision in the 1912 agreement for local or colliery "grievance committees" to represent the workers at any mine in dealing with the mine boss or superintendent. These changes have had the effect of affording experience and education to the mine workers in collective action, of strengthening the union, and of allowing a larger number of grievances to be aired and settled. The matters arising for settlement have exhibited a tendency to become more important in their character. While there has been complaint of delay in settlements, the system of conciliation appears to have worked efficiently, and there have been practically no instances of repudiation of the settlements or of the decisions. The method of referring to umpires matters on which settlement by means of conciliation could not be made, as provided by the Anthracite Coal Strike Commission's awards, has been so successful that no suggestion of change has been made. In the settlement of disputes a great majority of the settlements and decisions have been interpretative in their character; but where it has been necessary, the board of conciliation has not hesitated to make settlements which were essentially amendments of the awards and of the agreements, and such settlements have been upheld in the decisions of umpires.

The success of the agreements, judged from the standpoint of collective bargaining, is seen in the fact that at no time has there been any repudiation of any agreement. A number of infractions have occurred in the form of local strikes, arising because of hasty group action on grievances and because of efforts to compel nonunion workers to become members of unions. The local grievances strikes have been much more rare than the "button strikes," and have been disconcerted by union officials as well as by the operators. The success of the agreements appears also to be indicated in the attitude of mine workers and operators; while both parties have expressed dissatisfaction with certain features of the agreements and of the system of conciliating disputes and grievances, the principle of collective bargaining is looked upon favorably by many representative operators as well as by union officials.

The measure of authority attached to the awards of the Anthracite Coal Strike Commission has been a factor in the enforcement of the

agreements which is not without its importance. Much of the respect in which its awards have been held has been undoubtedly due to its singularly effective work and to the fact that it marked the end of a struggle whose memories are unpleasant to both sides even to-day, but a great deal of the reverence for its decisions in 1903 has been due to its governmental character. The fact has not been forgotten that it was a body named by the President of the United States. Naturally there has been a tendency, which has been pointed out in the foregoing pages, to amend and add to the awards and to take away some of their constitutional character; yet they have performed the service of a constitution at a time when such service was perhaps of vital importance. Only as the habit of peaceful relations has grown has the usefulness of the awards as a constitution of industrial relations become less important and necessary.

With the successive agreements the employees have made important gains in wages, hours, and conditions of employment. Since 1900 there have been three horizontal increases in the rates of wages. Each of these increases have been of 10 per cent, applying to all employees except in one instance in 1903, in which a 5 per cent increase only was granted for one small group of employees. These increases were secured in 1900, 1903, and 1912. The first was the result of the strike of 1900, the second of arbitration by the Anthracite Coal Strike Commission, and the third of a joint agreement. In addition to this the 1903 award provided for a sliding scale with the rates existing in 1902, plus the horizontal increase, as a minimum.

The awards of 1903 contained four distinct provisions affecting wages, relating to: (1) Horizontal increases; (2) retroactive effect of increases; (3) shortened shifts; and (4) the sliding scale. As the result, contract miners received an increase of 11.1 per cent. Taking into account employees paid on a time basis, the results were: Water-hoisting engineers and firemen received an increase in hourly rate of 50 per cent, other engineers and pump men an increase in hourly rate of 22.5 per cent, and company men an increase in hourly rate of 25 per cent. It was estimated that this wage advance a little more than compensated for the increase in prices of food and other articles of consumption in the anthracite field since 1900, the cost of living being 10 per cent higher in 1903 than in 1900 and 6 per cent higher than in 1901.

The average per cent of increase received by the mine workers under the sliding scale during the nine years of its existence, from 1903 to 1912, was 4.2 per cent above the wages as increased by other provisions of the 1903 award. The 1912 agreement provided that the contract rates and wage scales for all employees should be increased 10 per cent over and above the contract rates and wage

scales established by the Anthracite Coal Strike Commission in 1903, and that the sliding scale should be abolished. The net effect of this provision was to increase the average wages of all workmen 5.6 per cent above the wages paid in 1911.

The only provisions relating to hours in any of the agreements and other stipulations resulting from collective bargaining in the anthracite field since 1900 were contained in the 1903 awards, although the mine workers have consistently demanded an eight-hour day for all time workers in the making of subsequent agreements. The 1903 award provided for eight-hour shifts for water-hoisting engineers; Sundays off for hoisting and other engineers and pump men, other than those employed in hoisting water; eight-hour shifts for firemen; nine-hour day for all company employees on time basis, with same pay as for the former ten-hour day, and overtime in excess of nine hours. This meant that for engineers, pump men, and firemen a uniform eight-hour shift was provided, since these positions were such as required continuous manning. For other time employees of the company the nine-hour day was to prevail so far as the rate of pay was concerned. In practice these employees could be kept at work as long as the employers wished at overtime rates, which were no higher than the regular rates. It was claimed, although the award had been in operation for over a year, that the nine-hour day was no shorter and no more profitable than the former ten-hour day.

The demand for an eight-hour day for all work connected with the mines has until recently been based on the usual reasons given by labor unions. Since the new reason for this demand may throw light on future agreement making, it may be well to state it here. While the development of narrower veins of coal, imposing more arduous working conditions upon miners and reducing their earning capacity, has been urged in support of demands for shorter hours and higher rates of pay, the installation of a new coal-cutting machine since the 1912 agreement was signed is put forward as additional ground for the eight-hour day demand. In the Scranton or northern field, it is asserted, certain operators are working veins varying from $2\frac{1}{2}$ to 3 feet in thickness. The new coal-cutting machine which has been introduced takes out the coal, after driving the gangways, without removing the bottom layer of rock. The miners employed in these chambers are compelled to work in extremely cramped and uncomfortable positions and the laborers who load the coal must move about on their hands and knees. The payment of these miners and their laborers on an eight-hour day time basis instead of by the ton is now urged.

The degree in which the maintenance of discipline has been affected by trade agreements and by the development of the principle of

collective bargaining is, of course, a matter of opinion on the part of those who provide and enforce regulations and of those who are expected to obey them. The point of view of each side, therefore, must be taken into consideration.

The right of the employer to maintain discipline in the operation of his mine was clearly and definitely recognized by the Anthracite Coal Strike Commission. The question of discipline had been emphasized by the operators before the commission by urging that recognition of the union would endanger the discipline necessary and proper to the efficient operation of the mine. "The union must not undertake to assume, or to interfere with, the management of the business of the employer," said the commission in its report in discussing the proper attitude of a union in order to be recognized. Again, in referring to discrimination by either the employer or the workers, lawlessness, boycotting, and blacklisting, the commission said: "There is no industry in which discipline is more essential than in mining. The hazardous nature of the work calls for the best discipline; it is to the interest of the employer and employee to see that it is maintained. Each should aid the other in establishing the best methods not only for securing discipline, but in preserving it. Discrimination and interference weaken all discipline." Only two of a number of cases, involving the question of discharge as a means to enforce discipline, coming up before the board of conciliation were acted upon, and on both of these the union and employer members deadlocked, the cases, therefore, going to umpire. In both of these cases the right of the employer to discharge an employee for breaking colliery regulations was upheld, although in both instances the employers were censured by the umpire for the manner in which the employee was treated, on the ground that the spirit of the award, i. e., the preservation of peace between employer and employee, was not observed, and in one case on the additional ground that punishment had been too severe.

While no specific provisions appeared in the 1903 awards or in the subsequent agreements relating to the maintenance of discipline, it is evident that the Anthracite Coal Strike Commission's idea, which was later upheld in the decision of umpires, was that, while the employer had the right to enforce discipline, even to the extent of suspending or discharging the offending employee, the cause of discipline could best be served by cooperation between employer and employee rather than by an exhibition of domineering authority on the employer's part or of assumption of unwarranted "rights" on the employee's part.

The point of view of the employer as regards the meaning of discipline and the method of enforcing it has undergone some modi-

fication since 1900. A canvass of representative mining company superintendents, who come into daily contact with conditions, shows that while they believe the necessary discipline has been weakened by the results of collective bargaining, they are inclined to have greater confidence in the ability of the mine workers' organization to cooperate with them in the future.

Taking the operators as a whole, however, while they believe that dealing with any organization of employees is detrimental to discipline, particularly through local grievance committees, the maintenance of discipline under conditions where trade agreements exist is a matter of education of the worker. They are gradually feeling a greater confidence in the ability of the union leaders to understand the difference between questions affecting recognition, wages, hours, and conditions of labor and regulations for the efficient and safe conduct of the colliery, and those affecting the education and control of the untutored and raw worker in the mine. Perhaps it is not too much to say that the average operator has had to learn to see this difference himself.

The question of discipline, involving, as it does, the entire question of the operator's authority, goes to the heart of the problem. Upon the success of the maintenance of discipline under conditions of collective bargaining largely rests the success of collective bargaining itself so far as the operator is concerned. That there has been great progress made in the anthracite field there can be little doubt. The operators have more confidence in the union officials; the union realizes its own responsibility more than ever before; the substitution of the cooperative spirit for the old condition of master against worker is perceptible; and there is a very evident disposition on the part of the employer to trust the union still further as the union is able to control the heterogeneous elements that comprise its membership.

REPORT OF THE COLORADO COAL COMMISSION.¹

In 1914 the President appointed a commission to report upon the labor difficulties in the coal fields of Colorado during the years 1914 and 1915. The commission consisted of Seth Low, of New York City; Charles W. Mills, of Philadelphia; and Patrick Gilday, of Clearfield, Pa. This commission submitted its final report under date of February 23, 1916.

The report is very brief, containing merely a summary of findings, based for the most part upon a personal visit of the commission to

¹ Report of the Colorado Coal Commission on the labor difficulties in the coal fields of Colorado during the years 1914 and 1915, House Doc. No. 859, 64th Cong., 1st sess.

the Colorado coal fields. In scope it is concerned primarily with conditions in the coal fields as they existed after the strike disturbances.

In its survey of conditions growing out of the strike, the commission emphasizes two factors as of particular importance: The creation of the Colorado Industrial Commission, with extensive authority in industrial disputes, and the plan of the Colorado Fuel & Iron Co.¹ for regulating the relations between the corporation and its employees. The Colorado Industrial Commission, under its creative act, is given the power of compulsory investigation of labor disputes, and for a period of 30 days during which the investigation is pending, strikes or lockouts are forbidden under penalty.

Particular attention was devoted by the commission to the operation of the industrial representation plan of the Colorado Fuel & Iron Co. Its conclusion is that the plan was adopted by the company "in entire good faith and is being operated with a single-hearted desire to make it successful." The opposition of organized labor to the plan is noted and commented upon as follows:

It must be said that there is no effort being made on the part of the organization to ascertain whether the company is acting in good faith or not. Their contention that the miners are not free under the industrial plan to express their real opinions and that they dare not avow their membership in the union could readily be tested if one of their representatives would express his real opinion and any action were taken by the company against such individual. Your commission, upon hearing the complaints to the effect that a member of their organization would be promptly discharged if he made his membership known to the foreman or his associates, endeavored to have some individual follow this course in order that your commission might discover if there was any real discrimination on account of membership in the organization, but we were unsuccessful in getting any of the leaders with whom we conferred to agree to such a course unless we would guarantee that anyone doing so would not lose his place. That, evidently, was not our province, neither was it in our power to do.

The charge of discrimination against former strikers is not regarded as well founded by the commission. Its conclusion is that such discrimination exists in some degree in the northern field, but little if at all in the southern field. Referring to the fear of discrimination on the part of miners in the southern field, the report says: "Your commission is under the impression that the fear said to be entertained by the miners, so far as the companies are concerned, is probably exaggerated and is an imaginary fear rather than a real fear."

The commission speaks very favorably of the general living conditions of the miners: .

The housing conditions for the miners are exceptionally well provided, and every camp that we saw appeared to be doing much for the comfort and welfare of its employees. Bathing houses are provided in some instances free and in some instances operated for a charge of \$1 per month. If there is any charge, the attendant looks after washing

¹ For an analysis of this plan see the REVIEW for December, 1915, pp. 12-22.

out the clothes and hanging them up to dry and keeping the place in order. Many of the camps have clubhouses with pool tables, a reading room, and various games for the enjoyment of the members, and all of the clubs are free for the use of the employees.

Schools are maintained for the benefit of the children of the miners. In some instances these schools are provided by the company, at least to the extent of furnishing the building for the same, though the instruction is paid for by the county. In every instance, however, the school is within easy walking distance, if not in the center of the town or camp.

As regards the indictment and imprisonment of striking miners, the report comments as follows:

Your commission became aware of only one disturbing element in the industrial situation. About 400 indictments were found after the strike, and all of these were of strikers. Some of the citizens of Colorado believe that many illegal acts were committed on the part of the operators, and the justice which finds all of the indictments on one side does not seem to them even-handed. Your commission naturally expresses no opinion as to the correctness of this belief. It simply calls attention to the existence of this feeling.

Again, it is believed by some, even among the operators, that in many of these cases the State has not sufficient evidence to convict. In such cases—and your commission believes that there are such—the men affected are suffering from great injustice, in that they are either confined in jails, unable to get bond, or if out on bond they are refused employment in Colorado on account of the indictment against them, and are prevented from leaving Colorado or the jurisdiction of the court by their bondsmen. As long as this condition of affairs exists the industrial health of Colorado will be weakened by this festering sore. It is not the business of your commission to weigh the rights and wrongs of the case, but we should fall short of our duty if we did not call attention to this feature of the situation and emphasize the importance to the State of providing a prompt remedy.

RETAIL PRICES OF FOOD IN THE UNITED STATES.

Reports to the Bureau of Labor Statistics from approximately 725 retail dealers in 44 of the principal industrial cities of the United States covering the principal staple articles show that for the month from December 15, 1915, to January 15, 1916, the price of food, taken as a whole, made no change. As to the articles considered separately, practically all meats advanced slightly in price. The most marked changes which occurred during the month were in potatoes, which advanced 28 per cent; in onions, which advanced 16 per cent, and in eggs, which declined 9 per cent.

A table showing relatively the retail prices of food on December 15, 1915, and on January 15, 1916, is given herewith. The relative numbers shown are simply percentages in which the average price for the entire year 1915 is taken as the base.

RELATIVE RETAIL PRICES OF FOOD ON DEC. 15, 1915, AND JAN. 15, 1916.

[Average price for the year 1915=100.]

Articles.	Dec. 15, 1915.	Jan. 15, 1916.
Sirloin steak.	98	100
Round steak.	98	99
Rib roast.	99	100
Chuck roast.	98	99
Plate boiling beef.	98	99
Pork chops.	91	93
Bacon, smoked.	101	101
Ham, smoked.	103	104
Lard, pure.	98	99
Hens.	98	104
Flour, wheat.	91	95
Corn meal.	99	99
Eggs, strictly fresh.	137	124
Butter, creamery.	108	107
Potatoes, Irish.	120	153
Sugar, granulated.	103	102
Cheese.	102	105
Rice.	100	100
Beans.	114	117
Coffee.	100	100
Tea.	100	100
Salmon.	100	100
Onions.	101	117
Prunes.	98	98
Raisins.	100	101
Milk.	100	101
All articles combined.	106	106

The following table shows the relative retail prices of food on January 15 of each year from 1912 to 1916, with the average for the year 1915 taken as the base or 100:

RELATIVE RETAIL PRICES OF FOOD IN JANUARY OF EACH YEAR, 1912 TO 1916, AS COMPARED WITH AVERAGE PRICES FOR THE YEAR 1915.

[Average price for the year 1915=100.]

Articles.	January—				
	1912	1913	1914	1915	1916
Sirloin steak.	81	93	98	99	100
Round steak.	77	89	99	99	99
Rib roast.	84	93	99	99	100
Chuck roast.			103	101	99
Plate boiling beef.			101	102	99
Pork chops.	84	92	102	92	93
Bacon, smoked.	86	94	98	101	101
Ham, smoked.	89	96	101	101	104
Lard, pure.	92	104	107	104	99
Hens.	92	97	102	98	104
Flour, wheat.	82	80	78	99	95
Corn meal.	90	91	96	100	99
Eggs, strictly fresh.	129	110	128	131	124
Butter, creamery.	120	114	111	108	107
Potatoes, Irish.	164	103	122	95	153
Sugar, granulated.	102	89	79	91	102
Cheese.				100	105
Rice.				100	100
Beans, navy.				93	117
Coffee.				100	100
Tea.				100	100
Salmon, canned.				100	100
Onions, yellow.				98	117
Prunes.				101	98
Raisins, seeded.				100	101
Milk, fresh.	98	101	103	101	101
All articles combined.	97	97	102	101	106

As shown by the preceding table, the price of food, taken as a whole, from January, 1912, to January, 1913, made no change, but from January, 1913, to January, 1914, the price of food advanced 5 per cent. Between January, 1914, and January, 1915, there was a decrease of 1 per cent, but by January, 1916, there was an increase of 5 per cent over January, 1915, an advance as great as between January, 1913, and January, 1914, making the advance 9 per cent in the four years from January, 1912, to January, 1916.

In the year from January, 1915, to January, 1916, there was a slight advance in the price of most meats, but the two cheaper cuts, chuck roast and plate boiling beef, declined in price. The most noticeable changes occurring during this year were advances of 61 per cent in potatoes, 26 per cent in beans, 19 per cent in onions, and 12 per cent in sugar.

PRICES AND COST OF LIVING IN CANADA.

On August 1, 1914, the board of inquiry into the cost of living in Canada, which had been appointed December 20, 1913, submitted its report to the Prime Minister of Canada.¹

This is a comprehensive report of two volumes and consists of a compilation and discussion of existing material in official, semi-official, and private publications regarding prices and cost of living in Canada. It covers a series of years and terminates, generally speaking, with the year 1913, but contains some data for the year 1914.

The board used data from practically all aspects of economic development capable of quantitative or statistical measurement and having a bearing upon the problem in hand. The available official statistics of wholesale and retail prices for foreign countries were utilized by the board for purposes of comparison with the movement in Canada, generally for the period 1900 to 1913. Among the topics considered in Volume I were the following: Movement of population from the land; standard of living (necessities and luxuries); industrial efficiency; adulteration and inspection of staple commodities; waste and extravagance; uneconomical household expenditures; rents, houses, town planning; public utilities; land speculation; cold storage; monopolies, industrial combinations, mergers, and trusts; lumber and other building material; amount and value of produce and prices of clothing, leather, rubber, boots and shoes, cereals, flour and bread, fish, live stock, meats, dairy products, etc.; cooperation; markets and marketing; stockyards, refrigeration; mixed farming and land settlement; agricultural credit, regulation of industry (bureaus

¹ Board of Inquiry into Cost of Living: Report of the Board, Ottawa, 1915. 2 vols. (Vol. I: 955 pp.; Vol. II: 1108 pp.)

of information, unemployment); customs tariff; gold production, supply and demand.

Volume I contains the principal report of the board, while Volume II is a supplementary report prepared by Mr. Coats, of the Department of Labor and the member of the board who did not sign the first volume of its report. Under a separate title,¹ Mr. Coats sets forth under the two heads of "the facts" and "the causes" his views on the rise in prices and the cost of living in Canada on the basis of material furnished by the Department of Labor (statistical branch). Part of the material is also found in Volume I of the board's report in the form of appendices. A summary of Volume II is also published separately.²

The conclusions of the board may be set forth very briefly. The board is of the opinion that the principal factor in the increase in prices has been the relatively large increase in the supply of gold in all the leading commercial nations since 1897. Among other causes which have increased the cost of living have been the enormous expenditures on railways and public works and large investments in nonproductive lines; manifold forms of wastage, public and private, individual and social; expenditure on a large scale for luxuries; wasteful methods in the household; restrictions in the supply of commodities as a result of the withdrawal of population from the land and the consequent decreased proportion of persons engaged in producing the food supply; uneconomic methods of distribution; concentration of population in cities, thereby increasing the proportion of nonproducing food consumers; and a general advance in the standard of living.

The remedies suggested by the board are the encouragement of land settlement; greater attention to mixed farming; increased production, with standardization and improvement of quality in farm products and by the adoption of the principle of cooperation in their distribution; extension of the parcel-post system and the making of good roads, thereby reducing the cost of producing the staple farm products; cheaper and more accessible working capital for the farmer; and, finally, vocational training to promote and maintain industrial efficiency.

It may be interesting to note that the board advocates municipal ownership of all public utilities in cities and towns.

¹ The Rise in Prices and the Cost of Living in Canada, 1900-1914. A statistical examination of economic causes. (Prices of commodities, wholesale and retail; prices of services; rents; wages; prices of securities; interest; monetary conditions; capital; labor; production; distribution; the standard of living.) Exhibit by the Statistical Branch, Department of Labor. Prepared under direction of R. H. Coats, member of the board of inquiry. Laid before the Board of Inquiry into the Cost of Living, 1915. [Ottawa, 1915.] 1108 pp.

² The Rise in Prices and the Cost of Living in Canada, 1900-1914. A statistical examination of economic causes. Synopsis of exhibit by the statistical branch, Department of Labor. Laid before the Board of Inquiry into the Cost of Living, 1915. Ottawa, 1915. 83 pp.

It is generally agreed that during the past 15 years there has been a rise in the cost of living in Canada of approximately 50 per cent. The wholesale prices of 272 representative articles have risen 48 per cent since 1900; and retail prices of over 30 articles of domestic consumption have advanced approximately 40 per cent. Rents increased 60 to 70 per cent. It is also agreed that the rise in prices has been a world-wide phenomenon. "Averaging the returns for the nine leading countries of Europe, together with Japan, Australia, New Zealand, the United States, and Canada—14 in all—the rise in wholesale prices has been about 24 per cent, and in retail about 31 per cent." This increase in prices has differed considerably in extent in the different countries, and different commodities and groups of commodities have responded in varying degrees.

In analyzing the situation, like the board, Mr. Coats appears to see the effect of the increased production of gold upon the general level of prices, but he lays more emphasis on the actual situation as regards production in Canada, which has been drawn "at an exceedingly rapid pace into the world trade scheme as a source of supply for raw materials, particularly cereals." "Around this hinges a general scheme of economic progress in Canada during the last 12 years, and in its various manifestations are to be sought perhaps three-fourths of the explanation of the course that has been followed by prices."

This generalization he arrived at as a result of the statistical examination of the growth and distribution of capital between 1900 and 1914. During the period 1900 to 1910 the proportion between the capital equipment of the primary industries of agriculture, fishing, and mining and the secondary industries (railways, canals, factories, municipalities, public works) changed from 4 to 1 to 5 or 6 to 1. The absorption of outside capital since 1900 has been nowhere more rapid than in Canada.

The second active agent of production, namely labor, has taken the same direction of increase. Thus, the population from 1900 to 1910 increased 35 per cent (45 per cent to 1913), a rise more rapid than that of any other country. A similar increase has taken place in the volume of production within the basic industries.

In the field of distribution the addition of distributive costs following an enlargement of the areas in which demand and supply are equalized has been the great factor at work. And, finally, there is noted a rise in the standard of living as indicated by increased per capita consumption of the common foods, increased use of luxuries, and increased social expenditures directed toward a higher standard of living.

The so-called causes of the rise in prices, namely, expensiveness of business methods, extravagance, the existence of the middleman,

mergers, and big business, customs duties, decline in municipal markets, increasing use of cold storage, higher wages, strikes, land speculation, wars, and militarism, etc., are phenomena in the main incidental; "they are not the tide—they are rather waves upon the tide—and explanations of the rise in prices should not treat them as fundamental." On the contrary, "the great rise in prices that has taken place in Canada is accordingly found to center largely in the new distribution problem which has been created by the lessening of local food supply during an era of heavy expenditures on capital account."

The only course, therefore, suggested by Mr. Coats as a relief against high prices lies in increasing the productive power of the country, placing a larger proportion of the population in the basic or extractive industries of the country.

RECENT REPORTS RELATING TO WORKMEN'S COMPENSATION AND INDUSTRIAL ACCIDENTS.

ILLINOIS.¹

The second annual report of the industrial board of Illinois deals largely with workmen's compensation. It is a pamphlet of 39 pages giving the report of the operations of the board up to June 30, 1915. Following an introductory chapter summarizing the board's activities and presenting nearly 4 pages of general rules adopted by that organization, the work of the year is given in the individual reports of the secretary, security department, arbitration department, and statistical department.

Employers in Illinois are compelled to secure the payment of compensation to the employee. The act provides four methods of security, and it is optional with the employer which method he shall elect. They are as follows: (1) By carrying his own risk, (2) by filing a bond, (3) by insuring, and (4) by some other method approved by the board. The work of the security department is to pass upon applications received under each method and when an insurance policy is allowed to expire the security department immediately makes a demand upon the employer either to renew his insurance or furnish security by one of the methods enumerated in the act. Up to the date of the report 201 employers had furnished proof of financial ability to carry their own risk, while 17,688 were protected by workmen's compensation insurance policies. Thirteen hundred and eighty-nine had not complied with the demand of the department to elect one of the foregoing methods of paying compensation.

¹ Illinois: Second annual report of the industrial board, June 30, 1915. Springfield, 1915. 39 pp.

The secretary's report includes a financial statement of the board for the period July 1, 1913, to June 1, 1915, of which the following is a summary:

SUMMARY OF FINANCIAL STATEMENT OF THE BOARD FOR PERIOD JULY 1, 1913, TO JUNE 1, 1915.

Items.	Appropriated.	Paid out.	Balance.
Original appropriation (July 1, 1913, to June 1, 1915):			
Secretary and clerk hire.....	\$15,600	\$15,600.00	.....
Furniture and office expense.....	6,000	6,000.00	.....
Fees, arbitration agents, medical examiners, and attorney.....	16,000	16,000.00	.....
Traveling expenses of members, etc.....	15,000	2,691.31	\$12,308.69
Office rent.....	3,000	3,000.00	.....
Total.....	55,600	43,291.31	12,308.69
Emergency appropriation (Apr. 1, 1915, to June 1, 1915):			
Incidental expenses.....	8,685	3,687.65	4,997.35
Medical examiner, clerks, stenographers, etc.....	21,180	3,160.46	18,019.54
Total.....	29,865	6,848.11	23,016.89
Grand total.....	85,465	50,139.42	35,325.58

Applications for adjustment of claims filed with the arbitration department numbered 2,314, and the total compensation awarded to date amounted to \$1,590,041. The average amount allowed in fatal cases was \$2,081.77.

The work of the statistical department extended over only six months of the year, since it was not formally organized until January, 1915. However, the tabulations include all compensable accidents; that is, those extending over six days, which occurred from January 1, 1914, to June 30, 1915. The following table presents a summary of all compensable accidents reported during this period, showing the amount of compensation and medical and hospital benefits paid:

SUMMARY OF ALL COMPENSABLE ACCIDENTS REPORTED DURING THE PERIOD JAN. 1, 1914, TO JUNE 30, 1915, SHOWING AVERAGE BENEFIT PER ACCIDENT.

Kind of accident, all industries.	Six months ending June 30, 1914.					Year ending June 30, 1915.				
	Number of accidents.	Compensation paid.	Medical and hospital service.	Total benefits.	Average per case.	Number of accidents.	Compensation paid.	Medical and hospital service.	Total benefits.	Average per case.
Fatal.....	53	\$113,065	\$1,357	\$114,422	\$2,158.90	73	\$165,031	\$912	\$165,943	\$2,273.19
Nonfatal.....	7,134	341,094	77,921	419,015	58.73	12,167	390,589	102,804	493,393	40.55
Total.....	7,187	454,159	79,278	533,437	74.22	12,240	555,620	103,716	659,336	53.87

The report includes other tables showing for each branch of industry the fatal and nonfatal accidents from January 1, 1914, to June 30, 1915, by counties, occupation, sex, conjugal condition, average wage and average age, and by cause and nature of injury for the year ending June 30, 1915.

KENTUCKY.

Following the action of the court of appeals holding unconstitutional the compensation law enacted by the legislature of that State in 1914, a voluntary commission was formed by persons interested, representing the State federation of labor, the manufacturers' and shippers' association and the mine owners' association of the State, and the attorney general's department. This commission has submitted a report with the draft of a bill for the consideration of the State legislature now in session.

The report presents, first, a brief account of the circumstances leading up to its organization, including the grounds on which the earlier law was declared unconstitutional. The desirability of a compensation law for the State was assumed, the only question being the form necessary to satisfy the constitution, and the provisions, adequate but not burdensome, for relief and administration.

The difficulty with the earlier act, as set forth by the court, was in brief that though elective in form the presumption of election by the employee in case the employer elected was a deprivation of rights, that the abrogation of defenses where employers rejected the provisions of the act made it in effect compulsory, and that these and other provisions of the act violated section 54 of the constitution of the State, which denies to the legislature "the power to limit the amount of recovery for injuries resulting in death, or for injuries to property." On a petition for a rehearing, which was overruled, the foregoing opinion was modified to the extent of holding that the provisions as to the employer were not in conflict with any provisions of the constitution. The commissioners were confronted, therefore, with the necessity of drafting a bill that would avoid the difficulties which led to the holding of unconstitutionality of the former bill. This was accomplished by making the act an elective one, subject to choice or rejection by both parties, each necessarily taking affirmative action to secure election. The employer's defenses in case of failure to elect are abrogated.

The law is general in its scope, covering municipal employments and all private employments in which there are three or more employees, domestic and agricultural labor and railroad employments in which Federal statutes control being excepted. An administrative board of three persons is contemplated, having the power of decision in cases in which the interested parties fail to reach voluntary agreements; limited appeals to courts on these decisions are allowed. Compensation is on a basis of 65 per cent of the weekly wages, with provision for medical, etc., expenses, and a schedule for maimings in lieu of other compensation for such injuries.

An interesting discussion relates to the question of insurance under the act, so-called "monopolistic insurance," whether by the State or by stock companies, being condemned. The experience of the States of Ohio, Washington, and West Virginia with State funds of exclusive operation is discussed, partly independently and partly by reference to the report of a commission which reported to the senate of the State of Missouri on this subject. The conclusion is that the advantages of lower cost, which are supposed to represent the chief advantage of State administration, are not sufficient to warrant the assumption of such an undertaking, while other disadvantages, both financial and social, were charged. Provision was made, therefore, for self-insurance in cases approved by the commission, for mutual insurance, reciprocal insurance associations, and insurance in stock companies; also for the establishment of a State institution to be known as the Kentucky Employees Insurance Association, patterned after the corresponding association of the State of Massachusetts.

A tax of 4 per cent of all insurance premiums is proposed for the raising of funds to meet costs of administration.

The commission recommended an amendment to the constitution to remove the difficulty found with section 54, and while disclaiming any desire to interfere in any way with the legislature in the discharge of its duties, its draft of the bill for compensation was complete. Means of identification are not at hand, but it seems a fair inference that single bills on the subject which have been introduced in the senate and house, respectively—one to provide a compensation system and one to amend the constitution—are those that the commission recommended. The house committee on industrial insurance, to which the bill in that body was referred, subsequently reported a substitute for the compensation bill, the nature of which is not indicated in the source from which information on this point was secured.

MARYLAND.¹

The experience of the workmen's compensation law in Maryland for the first year that it has been in effect, November 1, 1914, to October 31, 1915, is presented in a 79-page pamphlet issued by the State industrial accident commission under date of December 31, 1915. It was to take the place of a previous statute which the report characterizes as "archaic and unworkable" that the present compensation law was passed, and the first "year's experience under the law has demonstrated that in respect of injuries occurring in prosecution of employments therein enumerated the act affords certain and

¹ First Annual Report of the State Industrial Accident Commission of Maryland for the year Nov. 1, 1914, to Oct. 31, 1915. Baltimore, 1915. 79 pp. Illustrated.

prompt pecuniary relief"; that "the elimination of the ingredient of fault as a cause of the injury has greatly narrowed the debatable ground as to the right of relief"; that "so far as the employers are concerned the element of certainty as to the cost of compensation and the state of satisfaction of their employees resulting from the assurance of relief in case of accident have been decided advantages in the prosecution of business," the best evidence of which is the "fact that no serious suggestion has been made by employers, as has happened in other States, to attack its constitutionality."

The report emphasizes three outstanding features of the law: (1) It is compulsory; (2) it requires that unless an employer can furnish satisfactory proof of financial ability to pay compensation as it might accrue he shall insure that compensation in an approved insurance company or association or in the State accident fund administered by the commission; and (3) it provides for the operation of the State fund in competition with private insurance companies, which enables it to protect the employer against unduly high insurance rates. As a result of the first year's experience the rates have been reduced approximately 15 per cent.

Of the 12,000 employers who came under the act during the year, 11,035 (92 per cent) insured with stock companies, 842 (7 per cent) insured in the State accident fund, and 123 (1 per cent) were granted the right to carry their own insurance. A table is presented showing the number of employers under each employment group adopting each specified method of insurance. Five hundred and three accidents were adjusted under the policies of the State accident fund. The condition of this fund on October 31, 1915, was as follows:

ASSETS.	
Cash on deposit, State treasury.....	\$48,501.59
Policyholders' accounts.....	6,114.83
Total assets.....	\$54,616.42
LIABILITIES.	
Reserve for losses.....	\$4,213.93
Reserve for unearned premiums.....	3,145.64
Reserve for special surplus ¹	4,682.88
Reserve for surplus.....	42,573.97
Total reserves.....	54,616.42
INCOME AND DISBURSEMENTS.	
Income.	
Net premiums written.....	\$46,826.81
Interest on deposits to Oct. 15, 1915.....	293.84
Transferred from appropriations for 1914 of the State industrial accident commission.....	15,000.00
Total income.....	62,120.65

Disbursements.

Losses paid, medical.....	\$2,315.88
Losses paid, temporary total disability.....	3,521.89
Losses paid, permanent partial disability.....	1,281.71
Losses paid, death (dependency).....	324.75
Losses paid, death (no dependency).....	60.00
 Total losses paid.....	 \$7,504.23
Reserve for losses.....	4,213.93
Reserve for unearned premiums.....	3,145.64
Reserve for special surplus ¹	4,682.88
Reserve for surplus.....	42,573.97
 Total reserves.....	 54,616.42
 Total losses and reserves.....	 62,120.65

Accidents to the number of 20,348 were reported in the 12-month period; of these 121 were fatal. Of the 3,443 claims filed, 3,352 were nonfatal and 91 fatal. Compensation was awarded in 2,977² cases and disallowed in 199 cases, leaving 267 cases unsettled on November 1, 1915. The total number of accidents is classified according to the character and cause of the injuries, the age, sex, marital condition, and wages of the persons injured, and charts and diagrams graphically depicting most of these tables are presented. Similar classification is made of the 503 accidents occurring in employments insured under the State accident fund. Two hundred and forty-nine claims were contested, of which 131 were settled in favor of the claimants.

Compensation under the Maryland law is 50 per cent of the average weekly wage. In death cases, widows and minor children or other dependents receive 50 per cent of the deceased employee's average weekly wage for a period not exceeding eight years. In all cases of temporary disability, whether total or partial in character, no compensation is paid for the first two weeks, but the injured employee is entitled to limited medical and hospital service. The benefits which accrued to workmen or dependents during the first year are shown in the following table.

¹ As provided in sec. 23, ch. 800, acts of 1914.

² This is the statement of the claims bureau; it does not agree with the total number of awards given in the table. This discrepancy is not explained.

BENEFITS DERIVED BY BENEFICIARIES OF THE MARYLAND WORKMEN'S COMPENSATION LAW DURING THE YEAR ENDING OCT. 31, 1915.

Payments made for—	Number of awards.	Compensation paid.	Compensation outstanding.	Other payments.	Total.
Fatal accidents.....	66	\$13,633.42	\$165,317.12	.....	\$178,950.54
Permanent partial disability.....	225	25,020.57	19,429.64	.....	44,450.21
Temporary total disability.....	1,2,960	83,713.64	.....	.....	83,713.64
Temporary partial disability.....	5	33.31	.....	.....	33.31
Medical service in compensation cases.....	.....	.....	.....	\$37,321.08	37,321.08
Medical service in cases that did not reach compensation.....	.....	.....	.....	53,843.10	53,843.10
Funeral expenses.....	.....	.....	.....	5,720.65	5,720.65
Total.....	3,256	122,400.94	184,746.76	96,884.83	404,032.53

¹ Includes 310 cases in which weekly payments amounting to \$2,049.83 were being made on Nov. 1, 1915.

It is quite likely that this statement includes some awards made between November 1 and the date the report was written; otherwise no explanation is found for the discrepancy between the total number of awards as given in this table and the total number of awards (2,977) reported by the claims bureau.

The ratio of claims to accidents was 16.9 per cent. Drowning showed the highest percentage of accidents resulting seriously (100 per cent) and the lowest percentage (5.9 per cent) was due to asphyxiation or suffocation. The report includes some important rulings of the commission and a "gallery of beneficiaries" showing the pictures of a few of those receiving compensation, and closes with a copy of the rules of procedure established by the State Industrial Accident Commission.

MICHIGAN.¹

The annual report of the industrial accident board of Michigan for the year ending December 31, 1915, embodies statistical facts and figures classified according to industry, nature, and extent of injury and method of carrying risk. An employer may elect to cover his risk by stock insurance, mutual insurance, State insurance, or he may carry his own risk. The 15,106 employers and 505,025 employees which the report states are affected by the workmen's compensation act are divided according to method of insurance as follows:

EMPLOYERS AND EMPLOYEES AFFECTED BY THE WORKMEN'S COMPENSATION ACT, SHOWING NUMBER AND PER CENT UNDER EACH METHOD OF INSURANCE.

Method of insurance.	Employers.	Per cent.	Employees.	Per cent.
Stock.....	13,325	88.2	294,312	58.3
Mutual.....	767	5.1	38,881	7.7
State.....	559	3.7	14,078	2.8
Own risk.....	455	3.0	157,754	31.2
Total.....	15,106	100.0	505,025	100.0

¹ Report of the industrial accident board for the year 1915. Lansing, 1916. 16 pp.

In addition to these, all the municipalities are subject to the law without election on their part, and this includes the 84 counties, 108 cities, 338 villages, 1,245 townships, and 7,362 school districts. The law also covers the employees of the State except the State board of agriculture and the regents of the university.

The total number of accidents during the year was 39,781, of which 26,289 caused general disability for less than 2 weeks.¹ The remainder, 13,492, were compensable and classified according to industry as follows:

NUMBER AND PER CENT OF COMPENSABLE ACCIDENTS UNDER EACH SPECIFIED INDUSTRY BY NATURE OF DISABILITY.

Industry.	Fatal.		Permanent partial.		Temporary total.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Auto and auto parts.....	17	.88	260	13.38	1,666	85.74	1,943	100.00
Construction.....	21	2.11	30	3.02	943	94.87	994	100.00
Engine and machinery manufacturing.....	1	.44	22	9.69	204	89.86	227	100.00
Food products manufacturing.....	4	.79	22	4.34	481	94.87	507	100.00
Foundry and machine shops.....	5	1.05	38	7.95	435	91.00	478	100.00
Implement and tool manufacturing.....	3	1.68	22	12.29	154	86.03	179	100.00
Light and power.....	11	5.09	8	3.70	197	91.20	216	100.00
Lumber.....	29	2.32	83	6.65	1,137	91.03	1,249	100.00
Metal and metal products.....	7	1.33	57	10.82	463	87.85	527	100.00
Mining, coal.....	6	4.35	6	4.35	126	91.30	138	100.00
Mining, iron.....	39	4.50	24	2.76	805	92.74	868	100.00
Mining, copper.....	58	4.31	43	3.20	1,244	92.48	1,345	100.00
Miscellaneous manufacturing.....	19	1.60	132	11.13	1,035	87.27	1,186	100.00
Municipalities.....	4	2.38	8	4.76	156	92.86	168	100.00
Paints and chemicals.....	11	4.26	15	5.81	232	89.92	258	100.00
Printing and binding.....			4	4.60	83	95.40	87	100.00
Railroads, steam.....	44	5.35	48	5.84	730	88.80	822	100.00
Railroads, electric.....	11	6.59	13	7.78	143	85.63	167	100.00
Woodworking and furniture manufacturing.....	7	1.31	77	14.39	451	84.30	535	100.00
Unclassified.....	35	2.19	60	3.75	1,503	94.05	1,598	100.00
Total.....	332	2.46	972	7.20	12,188	90.33	13,492	100.00

Under the provisions of the Michigan law the compensation is payable in weekly installments, the amount generally being 50 per cent of the average weekly wage. In fatal cases the payments continue for 300 weeks and in cases of permanent total disability the payments may continue as long as 500 weeks. It is therefore apparent, says the report, that in a considerable number of cases the payments of compensation will run on for a number of months or years according to the nature of the accident or extent of disability, and that such cases will remain open until final payment is made. Under the system in vogue receipts signed by the injured workmen or dependents are regularly filed for the weekly payments until the entire compensation required in the case is paid, at which time they are checked up, balanced, attached to the final settlement receipt and filed away.

¹ The report does not show what accidents are reportable under the practice of the Michigan board. A disability to be compensable must last 2 weeks, but payment is made from the date of injury if the disability lasts 8 weeks or more.

among the completed cases. The number of cases so completed in the year 1915 was 11,881, of which 60, or 0.5 per cent, were fatal; 1,154, or 9.7 per cent, were permanent partial; 6, or 0.05 per cent, were permanent total; 2,448, or 20.6 per cent, lasted eight weeks or more; and 8,213, or 69.1 per cent, lasted less than eight weeks. About one-half, 50.5 per cent or 5,998, were insured in stock companies, 9.7 per cent (1,157) were insured in mutual companies, 2.3 per cent (272) were insured in the State fund, while in 37.5 per cent (4,454) of the cases the risk was carried by the employers. The average total compensation paid per case was \$76.38. The average medical aid paid per case in 5,165 cases was \$28.77.

The report states that the total amount paid during the year to injured workers and their dependents was \$1,213,103.32, and in addition to this \$148,615.20 was paid in medical and hospital service. The medical and hospital expense paid by employers under the State accident fund is not included in the above statement, as the State was not authorized to cover medical and hospital service until the going into effect of the act passed for that purpose in 1915.

The report suggests the necessity for a change in the method of handling disputed administrative questions such as the nature and extent of the injury, continuance of disability, stoppage of compensation, disputed medical and hospital charges, and the like. At present most of these matters are handled on petitions filed with the board and since the established rules of evidence are held to be binding on the board, *ex parte* affidavits, doctor's certificates, and like papers are not admissible as evidence at such hearings, have no legal standing, and can not be made the basis for action by the board. This fact, it is pointed out, necessitates the taking of formal depositions involving much time and expense and causing delay in the awarding of compensation. The board suggests a new system which it is claimed would bring together in the locality where they reside all the parties to these disputed questions, who in consultation with an officer or representative of the board would be able to sift out and settle such matters at a great saving in time and money to injured workers as well as to the employers and insurance carriers. The work of administration would be expedited, it is believed, and the benefits of the law brought more quickly and surely to all parties concerned. The field work necessary to put this plan into operation is briefly outlined and the additional expense thus incurred would be offset by saving in correspondence, postage, stationery, and other work.

NEW YORK.

STATE INSURANCE FUND.

"The State fund—Its right to compete," is the title of a pamphlet issued by the State Insurance Fund of New York with the indorsement of the Industrial Commission. The four parts of the booklet comprise a statement by the commission, with a letter from Vice President Rowe of the Aetna Life Insurance Co. protesting against alleged unfair treatment by the State officials managing the insurance fund, Gov. Whitman's reply, and the statement of Mr. Baldwin, manager of the State Insurance Fund.

Vice President Rowe's protest alleged an "unfair and unwarranted attempt" on the part of an official of the State of New York "to disparage and discredit the motives and honesty" of stock companies writing workmen's compensation insurance. Two points in particular were complained of, one that a letter addressed to an employer formerly insured in the State fund, but about to withdraw and take insurance in a stock company, declared that "all arguments against State fund insurance are worthless, and in point of fact they are only conjured up for the purpose of confusing and disturbing employers in order to mulct them for agents' commissions and stockholders' profits"; the other point related to a provision of the law relative to notice of withdrawal. It was claimed that only by establishing a cut-rate insurance system, endowed by a subsidy from the State treasury for administration expenses, free from supervision and taxation, employing unlicensed solicitors and agents, and "clothed with authority to offer unfair inducements denied to all other competitors," could the State fund take its stand. It was further declared that this condition existed by the action of the legislature which had set up the fund, endowing it with special privileges. It was argued that the compensation act was restricted in its application, so that all the employees of an employer insured under it were not necessarily covered; that a common-law liability, as for the loss of service in the case of parents or husband and wife remains unprovided for; that personal injuries or disfigurements not mentioned in the act might give rise to suit for damages; that classes of employees for whom admiralty law might afford relief could collect damages; that in case of the unconstitutionality of the act no protection would be furnished by the fund, eminent legal authorities being still in doubt as to its constitutionality; that extra assessments might be enforced; and that the State fund was being conducted by a new and inexperienced organization, as compared with the expert quality of service offered by private stock companies. On all these points it was claimed that the private stock companies offered complete protection as against the incomplete or doubtful benefits of the State fund.

The governor's reply did not enter upon the merits of the question other than to sustain the right of the manager of the fund to depart from ordinary official conduct in view of the fact that the business was a competitive one, which was held to justify as proper the statements that the manager had made. Points of the law were mentioned, the construction of which by the attorney general of the State met certain objections raised, taking the opposite view from that contended for by Mr. Rowe.

The statement by Manager Baldwin took up, point by point, the objections raised, sustaining the original statement as made, but not as quoted by Mr. Rowe, setting forth the nature of the fund as offering insurance at absolute cost, and subsidized only in its initiation in order to gain a footing as a fund with sufficient assets to afford safety. On the question of coverage it was pointed out that common-law liabilities were abrogated where the law applies, and that all employees of an employer entitled to insure under the act were covered by it; the availability of proceedings in admiralty where the employment permitted it was conceded. Constructions of the law by the attorney general and by the State courts were presented as rebutting certain charges, especially the one as to doubtful constitutionality, and the one relating to the power of making assessments, which it was held did not exist. The experience of the stock companies was declared to be offset by the fact of the safety engineering department maintained by the fund and its cooperation with the inspection bureau of the labor department of the State. The question of disfigurement, which the act does not cover, was held undecided until the court of appeals should pass upon it, though the fact that in the case cited insurance was in a stock company and not in the State fund was pointed out, and the suggestion made under that, that if insurance had been in the State fund, the abrogation of common-law actions would have prevented the suit. The conclusion was reached that "the claim of superior service advanced by the stock companies is without foundation in fact," an attitude which the Industrial Commission indorses, together with the right of the State fund to compete for business, as was also indicated in the governor's reply.

REPORT OF STATE SUPERINTENDENT OF INSURANCE.¹

In a pamphlet of 62 pages the New York State superintendent of insurance presents the preliminary text and tables of the forthcoming fifty-seventh annual report of the department for the year ending December 31, 1915.

Discussing workmen's compensation, the report indicates that "notwithstanding the higher cost of stock insurance with its agency

¹ New York. Preliminary text and tables, fifty-seventh annual report of the superintendent of insurance, covering transactions of calendar year closing Dec. 31, 1915. Albany, 1916. 62 pp.

expense, the employers, as a whole, seem to prefer that form of protection," which appears to be supported by the statement that 76 per cent of the workmen's compensation risks are carried by stock companies, 11 per cent by mutual companies, and 13 per cent in the State insurance fund. Eight of the mutual companies, it is stated, received less than \$50,000 per annum in premiums, while the remaining 9 are doing about 90 per cent of the mutual business. All but one or two, it appears from the report, declared dividends ranging up to 20 per cent, the maximum permitted by the department. They carry catastrophe reinsurance or are required to maintain a reserve against the catastrophe hazard. If reinsurance is carried the catastrophe reserve is not required but instead the companies are permitted to treat the catastrophe fund as an accumulation of surplus to meet unforeseen losses of all kinds. No mutual company in New York may now be organized unless it has a prospective annual premium income of at least \$25,000.

As to State insurance, the report says:

The competition offered by the State fund is upon a basis which makes difficult any comparison between it and the private insurance carriers. The fund is not under the supervision of this department and is not subject to the wise restrictions which have been placed by law upon the private companies. Insurance in the fund relieves an employer from liability and to further attract him the State bears all the expenses of the fund until the year 1917. With these advantages the State fund, given time enough, should prove a formidable competitor against stock insurance. It can not be, however, that it was the intent of the legislature which created the fund, to place it upon such a basis of disparity. This part of the New York workmen's compensation law is borrowed from Ohio, where the insurance plan is an absolute State monopoly. The New York program depends for its success upon the highest quality of service at the lowest possible legitimate cost.

It is a question in my mind whether the subsidy granted to the fund should not be repaid from its earnings so that eventually the venture will have cost nothing to the State. At all events there is ground for assuming that the fund is well able to bear its own current expenses without further assistance from the State. The law should be so amended as to make possible this desirable economy. I would go further and suggest for your consideration the possible advisability of reorganizing the fund as a bona fide mutual corporation with power to write all lines of liability insurance collateral or incidental to workmen's compensation.

Rates for compensation insurance are based upon pay roll expenditures and various business enterprises are classified according to the relative accident hazard, the class rate being adjusted by the determination of an individual rate. The insurance department approves the manual of tariff rates and the general rules governing merit rating, or the departure from tariff rates in arriving at individual rates. The companies themselves classify the risks and audit the pay rolls of their assured for the purpose of ascertaining the actual premiums to be charged. The physical features are measured and rated by means of a schedule, this process being called schedule rating, and supple-

mental to this a plan known as experience rating has been devised for the purpose of measuring the moral hazard. A compensation inspection rating board insures impartial treatment in the application of merit rating. With reference to maintaining adequate rates and avoiding opportunities for indiscriminate rate cutting, whether through wrongful classification, misapplication of individual rate, or dishonest audit of pay rolls, the superintendent of insurance contends that the law should be changed to provide regulatory power ample to prescribe methods of procedure and rules of conduct so that the system of rating may be scientifically developed and impartially administered. It is believed that the law should compel membership in a rating association conducted under such rules and regulations as may be prescribed by the superintendent of insurance, thus giving him authority to establish a practice of submitting all risks placed for insurance to such rating association for independent review and determination of rate.

The necessity for revision of rates is recognized and reference is made to the joint conference held in New York City on September 28 and 30, and December 3, 1915, for the purpose of considering the revision of workmen's compensation rates, classifications, and rules.¹

The report discusses at some length the subject of liability and compensation loss reserves, referring to a recommendation reported to the national convention of insurance commissioners, that liability and compensation reserves be computed separately on the basis of a fixed ratio (percentage for each class to be determined later) instead of a fixed ratio of 54 per cent as had been previously recommended and adopted by the convention as a temporary expedient to afford relief to certain companies "against which there had been unjust discrimination." The enactment of legislation to effectuate this plan is suggested. Under the present construction of the law companies engaged in the liability business 10 years or more reserve on December 31, 1915, their liability business on the basis of their liability experience, and their compensation business on a 54 per cent loss ratio. Companies which have not been engaged in the liability business 10 years reserve both liability and compensation business on the ratio fixed by statute, viz., 54 per cent on December 31, 1915.

JOINT CONFERENCE ON WORKMEN'S COMPENSATION INSURANCE RATES.²

For the purpose of effecting uniform revision of basic rates for workmen's compensation insurance, there was held in New York City on September 28 and 30 and December 3, 1915, a general conference of rating bureaus composed of representatives of the Work-

¹ An extended account of this conference is given below.

² State of New York Insurance Department, *Proceedings of the Joint Conference on Workmen's Compensation Insurance Rates*. Albany, 1915. 39 pp.

men's Compensation Service Bureau of New York, the Compensation Inspection Rating Board of New York and the Massachusetts Rating and Inspection Bureau. Representatives of the insurance departments of New York, Massachusetts, California, Maryland, and Pennsylvania, and of the Industrial Commission of Wisconsin participated in committee work.

A record of the activities of four committees appointed by the conference—rules, classifications, basic pure premiums, and loadings and differentials—constitutes about half of a 39-page report issued by the New York State insurance department in which the proceedings of the conference are briefly set forth.

The rules committee recommended an increase from \$10 to \$20 on compensation policies covering contractors and suggested four fundamental principles for pay-roll division, as follows:

1. The operative procedure within a given plant shall not be subject to division into several manual classifications where the employees are engaged, or the different operations are conducted in such manner that they are all brought together, the employees being commonly exposed to the general hazards of the enterprise which is best represented by its governing classifications.

2. Where there are distinct enterprises conducted in a given class by the same employer and the entire work in each enterprise is conducted either in a separate building or on a separate floor or floors of a building, the employer conducting each of such enterprises as a separate undertaking, with a separate pay-roll record, it is compulsory that such undertaking be separately classified and rated.

3. No operation normally prevailing in the work covered by the governing classification shall be considered a distinct enterprise.

4. Certain pay rolls, such as drivers and helpers, chauffeurs and helpers, clerical office employees, etc., must always be separately stated and rated unless the classification to be used specifically prohibits it.

An effort was made to harmonize these rules with the classifications in order to eliminate difficulties which had existed.

The work of the classification committee was "to establish classifications which properly described industrial enterprises, eliminating doubt as to the scope of the classifications, simplifying the use of the manual and insuring so far as possible uniformity of treatment in the application of the classifications."

In the determination of basic pure premiums that committee decided that consideration should first be given to Massachusetts' experience, then to the experience of New Jersey, Illinois, Michigan, and Wisconsin, that the aggregate or individual experience of these latter states should be used in connection with that of Massachusetts and reduced to the Massachusetts level by the application of suitable factors to reflect the difference in law and accident frequency. The establishment of a standing committee on manual rules, classifications, and rates was recommended for the primary purpose of clearing all proposed amendments through one source and thus insure standardization of practices.

The committee on loadings and differentials considered allowance for (1) differences in compensation acts governing benefits; (2) underestimate of outstanding losses; (3) increasing claim costs; (4) industrial diseases; (5) variation in rates due to merit rating; (6) differences in accident frequency; and (7) loadings for expense, profit, and catastrophe. The attention of the committee seems to have been directed primarily to a consideration of industrial diseases. An exhibit is presented showing the probable relative cost of compensation for industrial diseases and industrial accidents based on the statistics of experience in the United Kingdom, since in this country there is no direct basis of estimate of cost of occupational diseases. It is stated that mine diseases of the eye and skin, anthrax,¹ and phosphorus poisoning apparently do not exist to an appreciable extent in America, and that if these are excluded the health hazard by far predominating in both countries is lead poisoning. Since the British statistics show the disease cost of compensation by industries and not by diseases it is impossible, declares the report, to determine exactly the division of cost between what may be termed "American" and "non-American" diseases in the British data. By deducting the cost of all mine diseases, £350,691 (\$1,706,637.75) and an estimated total cost of £3,374 (\$16,419.57) for 197 cases of anthrax and 2 cases of phosphorus poisoning from the total cost of disease compensation, £464,637 (\$2,261,155.96) for seven industries—mines, quarries, railways, factories, harbors and docks, constructional work, and shipping—a balance of £110,572 (\$538,098.64) is obtained which is estimated to be the approximate cost in the United Kingdom of American occupational diseases in industries in which the total accident cost was £16,182,753 (\$78,753,367.47). That is, the British cost of American occupational diseases was about 0.68 per cent of the corresponding accident cost. Making no allowance for tuberculosis, pneumonia, bronchitis, etc., not in the British category of 25 specified diseases, the expected American cost would, according to the report, be about twice 0.68 per cent or 1.4 per cent for the same industries and the same distribution of workmen. The inclusion of tuberculosis alone, however, is estimated to increase this cost to about 2 per cent² and this is proposed as a proper estimate of the probable relative cost of the particular diseases studied to the cost of accident coverage in this country, in the industries mentioned, assuming similar industrial distribution of workers in both countries.

A table is presented showing for the seven industries mentioned the probable relative cost of disease to accident in the actual occupa-

¹ This assumption is clearly unwarranted so far as anthrax is concerned, since the report of the Massachusetts Industrial Accident Board for 1914 showed 8 cases, 2 of which were fatal.

² The report states that this figure may be expected to be reduced by a third as American regulation of industrial poisons improves, and by another third if occupational tuberculosis can at the same time be obliterated.

tional distribution in a given State as Massachusetts. The table also indicates the actual British disease cost and the cost with non-American diseases eliminated, to which reference has been made. In this comparison allowance has been made by estimate, first, for the practical absence of certain English mine diseases in this country and the full addition of various diseases that would be admitted in American acts compensating occupational diseases, and second, for the difference in distribution of workers in Great Britain and Massachusetts, for which state data were available as to accident cost and distribution by classifications. The committee concluded that 1 per cent ^a of the present total nominal accident cost is considered as a proper amount for distribution over the disease-hazardous classifications of Massachusetts, in addition to a 1 per cent flat loading on all industries for complete industrial disease coverage.

In Massachusetts the total cost of accidents relative to pay roll, during the period July 1, 1912, to September 30, 1913, was 0.39 per cent; 1 per cent of this is approximately 0.004. All preliminary estimated premiums for disease were accordingly cut in two with the results exhibited in the following table. In view of the lack of definite data as to occupational diseases in the United States the premium rates are largely estimated, with the tendency, probably, to put them high enough to meet all contingencies.

EFFECT OF ADDITION OF 1 PER CENT TO ALL ACCIDENT PURE PREMIUMS FOR OCCUPATIONAL DISEASES, BASED ON TOTAL COST OF ACCIDENTS IN MASSACHUSETTS, JULY 1, 1912, TO SEPTEMBER 30, 1913, SHOWING INDUSTRIAL HEALTH HAZARDS INVOLVED IN EACH SPECIFIED PROCESS.^b

[It must be remembered that in addition to the premiums indicated in the following table it is proposed to apply a flat 1 per cent of the accident pure premium on every classification.]

Code number.	Process.	Industrial health hazards.	Additional pure premium for occupational disease.
0100, 1	Tree pruning, spraying, fumigating, etc.	Potassium, cyanide, prussic acid, arsenate of lead, vitriol.	Cents. 4
1412	Gold refining (no ore reduction).....	Sulphuric acid fumes, heat, mercury, lead, potassium cyanide.	3
1421, 3	Iron smelting.....	Carbonmonoxide, fumes, heat, moisture, temperature change, fatigue, metal dust, clay dust, glare.	6
1466	Graphite manufacturing.....	Dust, heat, temperature change.....	2

^a In the table referred to it is estimated that 1.5 per cent additional of the total cost of accidents should be distributed according to disease hazard over those classifications now recognized as health hazards, and that 1 per cent should be added to all accident pure premiums to make provision for the occupational diseases that might require coverage in this country.

^b The committee makes it clear that the table must not be supposed to apply only to Massachusetts. The pure premium for occupational disease for any classification as determined for Massachusetts is assumed to apply to any State in which that classification occurs; the total cost of disease coverage relative to accident depending on the industries in the State, of course, and in general differing from the present total of 1 per cent in Massachusetts. The disease pure premiums for classifications under which there was no issue in Massachusetts between July 1, 1912, and September 30, 1913, have not at the present time been estimated. These and others that may be required in any State may be estimated quite satisfactorily by comparison with the premiums here assigned to classifications known to have comparable disease hazards.

70 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

EFFECT OF ADDITION OF 1 PER CENT TO ALL ACCIDENT PURE PREMIUMS FOR OCCUPATIONAL DISEASES, BASED ON TOTAL COST OF ACCIDENTS IN MASSACHUSETTS, JULY 1, 1912, TO SEPTEMBER 30, 1913, SHOWING INDUSTRIAL HEALTH HAZARDS INVOLVED IN EACH SPECIFIED PROCESS—Continued.

Code number.	Process.	Industrial health hazards.	Additional pure premium for occupational disease.
1652	Lime manufacturing.....	Lime dust, fumes, irritants of eyes and skin, carbon dioxide.....	4
1700	Adamant plaster manufacturing.....	Dust.....	4
1704	Stone crushing.....	do.....	3
1741	Emery crushing, grinding	do.....	2
1743	Silica grinding.....	do.....	3
1745	Soapstone manufacturing.....	do.....	3
1780	Emery, carborundum wheel manufacturing.....	Dust, heat, temperature change.....	1
2080	Stock yards.....	Infection.....	3
2081	Slaughtermen.....	do.....	2
2082	Packing houses.....	Heat, dampness, steam, solder.....	2
2171	Cigar, cigarette manufacturing (by hand).	Dust, fatigue.....	3
2175	Tobacco manufacturing (snuff).	Dust.....	2
2260, 3	Wool combing, scouring, carbonizing.....	Dust, fumes.....	3
2410	Waterproofing cloth (rubber).	Carbon disulphide, sulphur chloride, benzine, antimony, lead, wood alcohol, naphtha, mercury.....	3
2411	Waterproofing cloth (not rubber).	Fumes.....	1
2413	Textile dyeing, finishing, printing (new goods).	Dyestuffs, potassium cyanide.....	3
2414	Bleacheries.....	Chlorine, hypochlorites.....	6
2430	Oilcloth manufacturing.....	Fumes, lead, irritants.....	3
2431	Linoleum, cork carpet manufacturing.....	Dust, fumes, lead, irritants.....	3
2440	Wool separation.....	Dust, fumes.....	3
2530	Hat manufacturing (felt).	Mercury, fur dust, steam heat, shellac, wood alcohol, grease, carbon monoxide, emery sandpaper, nitric acid, arsenic, dyestuffs.....	9
2580-2	Laundries.....	Heat, dampness, fatigue, bleaching compounds.....	2
2583	Dyeing, cleaning.....	Dyestuffs, benzine, ammonia.....	3
2600	Fur manufacturing (preparing skins).	Lime, arsenic, mercury dyes, fur dust, infection.....	8
2610	Degreasing skins.....	Benzine.....	3
2620	Leather manufacturing (enamel).	Heat, anilins, amyl acetate fumes.....	4
2621	Morocco dressing.....	Heat, fumes.....	4
2622	Leather dressing (n. o. c.).	Heat, fumes, chrome, anilins.....	4
2623	Tanning.....	Lime, lead dust, naphtha, amyl acetate, chrome, ammonia.....	6
2624	Curriers.....	Dust.....	4
2940	Lead pencil manufacturing.....	do.....	2
2941	Crayon manufacturing.....	Dust pigments.....	3
3083	Foundries (n. o. c.).	Heat, fumes, dust, glare, dampness.....	4
3084	Foundries (bell).	Heat, fumes, glare.....	4
3085	Foundries (brass).	Lead poisoning, fumes, heat, dampness, temperature, change, dust.....	6
3120-2	Razor, cutlery manufacturing	Dust, lead, potassium cyanide.....	4
3302	Bedstead manufacturing (metal).	Lead, dust, wood alcohol, benzine, amyl acetate.....	7
3312, 3	Copper, zinc goods manufacturing (no smelting-rolling).	Copper, arsenic, lead, antimony, zinc.....	4
3331	Lead works—sheet, pipe, shot (no smelting).	Lead, arsenic, antimony.....	20
3334	Tin foil manufacturing.....	Lead.....	4
3335	Babbitt metal manufacturing.....	Lead, heat.....	7
3337	Galvanizing, tinning sheet metal.....	Acid fumes.....	3
3360-3	Oxy-acetylene, electric cutting, welding	Actinic rays, cyanides.....	4
3370, 2	Plating.....	Lead, mercury, acid, fumes, benzine, potassium cyanide.....	3
3631	Machine shops, with foundry.....	(See Foundries).	4
3640	Storage battery manufacturing from lead plates.	Lead, acid fumes.....	18
3641	Storage battery manufacturing from iron, nickel plates.	Fumes.....	2
3642	Dry battery manufacturing.....	Dust, fumes, benzol, acids.....	4
3683	Thermometer manufacturing.....	Mercury.....	8
3687	Photographic supplies manufacturing.....	Mercury, cyanides, vanadium.....	3
3688	Photographic films, dry plates.....	Mercury, cyanides, fumes, nitrocellulose.....	4

EFFECT OF ADDITION OF 1 PER CENT TO ALL ACCIDENT PURE PREMIUMS FOR OCCUPATIONAL DISEASES, BASED ON TOTAL COST OF ACCIDENTS IN MASSACHUSETTS, JULY 1, 1912, TO SEPTEMBER 30, 1913, SHOWING INDUSTRIAL HEALTH HAZARDS INVOLVED IN EACH SPECIFIED PROCESS—Continued.

Code number,	Process.	Industrial health hazards.	Additional pure premium for occupational disease.
4014	Potteries, earthenware manufacturing—tiling, gas retorts, sewer pipes.	Dust, heat, dampness, lead pigments, sulphur.	Cents. 18
4052	Earthenware manufacturing—household utensils, art objects.	Dust, pigments.	12
4100, 10	Glass manufacturing.....	Heat, light, lead, dust of glass, emery, sand-paper.	5
4111	Bottle manufacturing (no machine blowing).	Heat, light, blowing.	6
4113	Glass manufacturing (cut).....	Lead, dust, hydrofluoric acid.	6
4131	Mirror manufacturing (no glass manufacturing).	Mercury, acid fumes.	8
4133	Cathedral, art, stained glass manufacturing.	Fumes of turpentine, amyl acetate, wood alcohol, benzine, lead poisoning, chrome.	6
4150, 2, 3	Optical goods, eye-glass, glass-eye manufacturing.	Dust, chrome.	3
4205	Pulp manufacturing (sulphite).....	Lime, sulphuric acid, fumes, moisture, dye-stuffs.	4
4278	Fly paper (no paper manufacturing)...	Formaldehyde fumes.	5
4301	Wall paper manufacturing—designing, printing, etc. (no paper manufacturing).	Arsenic, acid fumes, chrome, anilins.	15
4350	Electrotyping.....	Lead, arsenic, dust, acids.	4
4360	Motion picture (film development).	(See Photography).....	3
4400	Rubber reclaiming.....	Benzine, naphtha, gasoline, carbon disulphide.	4
4410	Rubber goods manufacturing.....	Carbon disulphide, sulphur chloride, lead, naphtha, benzine, wood alcohol, mercury, acids.	5
4432	Celluloid manufacturing.....	Nitrocellulose, dust, fumes.	2
4500, 2	Baking powder, soda (bicarbonate) manufacturing.	Carbon dioxide.	2
4510	Acid manufacturing (n. o. c.).....	Fumes, hydrocyanic, hydrochloric, hydrofluoric, nitric, etc.	10
4511	Analytical chemists.....	Various chemicals.	4
4520	Alcohol, acetic acid manufacturing.....	Fumes, lime.	2
4521	Ammonia manufacturing.....	Fumes.	8
4523	Disinfectant manufacturing.....	Chlorine, formaldehyde, sulphur, carbolic acid.	13
4524	Chemical manufacturing (n. o. c.).....	Ammonia, benzol, bromine, carbon disulphide, chlorine, iodine, nitrous gases, carbolic acid, etc.	12
4527	Bleaching powder manufacturing.....	Chlorine, lime.	15
4528	Creosote manufacturing.....	Fumes.	4
4530	Camphor manufacturing.....	do.	3
4551	White lead manufacturing.....	Lead.	22
4553	Anilin, alizarin manufacturing.....	Wood alcohol, methyl bromide, methyl iodide, nitrous gases.	4
4554	Color manufacturing (dry).....	Anilins, ammonia, sulphuretted hydrogen.	4
4557	Ink manufacturing (printing).....	Pyrogallic acid, tanins.	4
4558	Paint manufacturing (no lead manufacturing).	Lead, chrome, antimony, turpentine.	16
4560	Whiting manufacturing.....	Dust.	4
4561	Varnish manufacturing.....	Ammonia, wood alcohol, turpentine.	4
4580	Fertilizer manufacturing.....	Bone dust, phosphates, nitric, nitrous, sulphuric, hydrochloric, hydrofluoric, and other acids, benzine, infection.	3
4590-2	Blackings, polishes.....	Dust, fumes.	2
4601	Drug manufacturing.....	Compounds, alkaloids, etc.	4
4602	Essential oils manufacturing.....	Vapors.	4
4606	Perfumery, flavoring manufacturing.....	Dimethyl sulphate, essential oils, nitro benzol.	4
4607	Pharmacists.....	Chemicals and drugs.	4
4630	Aerated, mineral water manufacturing.....	Carbon dioxide.	2
4633	Carbonic acid gas manufacturing.....	Fumes.	10
4634	Oxygen, hydrogen manufacturing.....	Carbon monoxide, chloride of lime.	2
4651, 3	Glue, mucilage manufacturing.....	Fumes, dust, infection.	2
4714	Soap powder manufacturing.....	Chlorine, dust.	2
4740	Oil refining.....	Carbon disulphide, fumes.	4
4741	Tar manufacturing (no coke oven operation).	Phenol, fumes, sulphuric acid.	12
4762	Cartridge manufacturing.....	Brass.	4
4763	Acetylene gas tank charging stations, operation.	Fumes.	7

EFFECT OF ADDITION OF 1 PER CENT TO ALL ACCIDENT PURE PREMIUMS FOR OCCUPATIONAL DISEASES, BASED ON TOTAL COST OF ACCIDENTS IN MASSACHUSETTS, JULY 1, 1912, TO SEPTEMBER 30, 1913, SHOWING INDUSTRIAL HEALTH HAZARDS INVOLVED IN EACH SPECIFIED PROCESS—Concluded.

Code number.	Process.	Industrial health hazards.	Additional pure premium for occupational disease.
5461	Painting, decorating, exterior.....	Lead, turpentine, wood alcohol, benzine, naphtha.	9
5462	Glaziers (away from shop).....	Lead.....	8
5490	Painting, decorating, interior (away from shop).....	Lead, dust from sandpapering, dampness, turpentine, wood alcohol, benzine, naphtha.	11
6250, 3	Caisson work.....	Compressed air, carbon dioxide.....	10
6254	Subway tunneling.....	Carbon dioxide.....	5
6300	Sewer building.....	Carbon dioxide, devitalized air.....	5
7206	Towel, etc., distributing.....	Infection.....	2
7500	Gas works.....	Carbon monoxide, cyanides, sulphuretted hydrogen.....	3
7585	Sewer cleaning.....	Carbon dioxide, sulphuretted hydrogen.....	12
7590	Garbage works.....	Infection.....	2
8100, 5	Hide, leather dealers.....	do.....	2
8200	Paper stock, rag dealers.....	do.....	2
8801	Hospital employees.....	do.....	2
9210	Fumigation of buildings.....	Hydrocyanic acid, formaldehyde and potassium permanganate, sulphur.....	6
9501	Painting, shop only.....	Lead, dust, fumes, dampness.....	17
9502	Sign painting, lettering, interior.....	As compared with ordinary painting, less lead in paint; less turpentine, benzine, naphtha in paint; little sandpapering; gloves worn.	9
9504	Enameling (no metal working).....	Lead, dust, heat, arsenic.....	15
9541	Sign painting, lettering, exterior.....	(See Sign painting, interior).....	7
9600	Taxidermists.....	Arsenic, mercury.....	6
9620	Undertakers.....	Formaldehyde.....	4

The committee found that the average expense ratio based on the transactions of the year 1914 was approximately 40 per cent of the compensation premium income. Inasmuch as both acquisition and administration expenses necessarily vary in the different compensation states, being a percentage of the gross premium income, the committee recognized that a flat loading for all States would be improper and inequitable. Accordingly the States were arranged in four groups, the percentage loading ranging from 35 per cent where the differential is 1.75 and over to 42½ per cent where the differential is 1.25 or less.

In studying catastrophe experience the committee considered certain serious accidents in the United States covering the period 1892 to 1913, inclusive, and assigned approximate values to each fatal and nonfatal accident using the total thus determined as a basis for an outside estimate. Assuming that the basic pure premium will provide for an inherent catastrophe hazard in particular classifications, such as, for example, coal mines, it was recommended that a loading of 2 cents per \$100 pay roll should be added to the gross premium of all classifications in New York and that a loading of 1 per cent per \$100 pay roll should be provided for other States.

MEMORANDUM ON ACCIDENT REPORTS FROM FEDERAL GOVERNMENT SHOPS.¹

BY H. S. HANNA.

The accident reports from the Government shops, under the Federal Compensation Act, show uniformly what appears to be an exceedingly large proportion of injuries terminating in the third week. In most instances the number reported as terminating in the third week is greater than the number for the second week. As such a distribution is contrary to all other experience of which there is record where accidents are fully reported, it has frequently been interpreted as indicating a practice on the part of injured workers of stretching short-time disabilities into the third week in order to benefit from the Compensation Act. The temptation to do so, it is argued, inheres in the form of the act, which allows no compensation for the first two weeks of disability but gives full wages for all of the time lost if the disability extends over 15 days. Thus, an injured worker who returns to work on or before the 15th day receives no compensation, whereas if he returns on the 16th day he receives compensation for the full disability period.

It is the contention in this article that, whatever may be the truth regarding the practice of malingering, the figures cited do not in any way establish its existence; that the excessive proportion of injuries reported as terminating in the third week, as well as other peculiarities in their distribution, can be much more logically explained on the ground that there is a gross deficiency in the accident reports for short-time disabilities. The reasons for this contention are briefly as follows.

The distribution of disabilities in the Government shops, according to week of termination, is shown by numbers in Table 1 and by percentages in Table 2. There are also shown the corresponding data for the iron and steel industry and the machine building industry. The information for these two industries was obtained in the course of current investigations of the Bureau of Labor Statistics. There is reason to believe that the data obtained are substantially accurate. Any error that may exist would be chiefly the result of failure to obtain full reports for the very short time disabilities and would thus show the accidents for the early weeks, principally the first week, as smaller than they should be.

A study of the data of these tables shows some striking facts. First, it will be noted that the percentage of injuries terminating in both the first and second weeks is very much smaller for the

¹ The Government shop data used as a basis for this discussion are from the tabulations made by the Bureau of Labor Statistics for its study, now in preparation, of Accidents and Accident Prevention in the Machine Building Industry. Similar tabulations are given in Bulletin No. 155 (report on operation of the Federal Compensation Act) but the form of tabulation there used does not permit of easy comparison with other industries.

Government shops than for the steel or machine building industries. Thus, taking the experience of the navy yards for 1914 as fairly representative of all the Government shop experience as reported, it appears that only 38 per cent of all reported injuries terminated in the first two weeks, whereas in the steel and machine building industries the percentages were, respectively, 74 per cent and 81 per cent. Nor is this the only striking peculiarity. For injuries terminating in the sixth week and later the navy yards show a percentage of 19 as against 6 and 5, respectively, in the steel and machine building industries.

These comparisons themselves would indicate probable error in the reports for the Government shops. The probability becomes even stronger when the comparisons are based upon the accident reports for the third week and over, all those for the first and second weeks being excluded. This is done in Table 3. It is then seen that when the first two weeks are excluded the experience of the Government shops is substantially the same as that of the steel and machine building industries. Particularly, it may be noted that the excessive percentage of Government shop disabilities terminating in the sixth week and over disappears, becoming 30 as against 25 and 27, respectively, for the steel and machine building industries.

This substantial harmony in the distribution of disability periods for three distinct industrial groups is a strong argument for the basic accuracy of such distribution. If so, there is nothing abnormal in the percentages for the Government shops for injuries terminating in the third and later weeks. For the short-time disabilities, however, the distribution for the Government shops is so abnormal that it seems impossible to explain it except on the ground of extremely faulty reporting.

The comparisons so far made have been in the form of percentages. If, in place of percentages, accident frequency rates are used the conclusion as to the incompleteness of reporting becomes even more evident. Table 4 shows the accident rates distributed by week of the termination of disability. Thus, the total accident rate for navy yards, 1914, was 112 per 1,000 300-day workers. Of these 112 accidents per 1,000 workers, 33 caused disability of less than a week, 9 caused disability of between one and two weeks, and so on. Rates of the same character are shown for the steel and machine building industries.

Comparing the data in the last three columns of the table, the most striking fact is, that for disabilities terminating in the third and later weeks, the accident rates in the navy yards are practically the same as those for the steel industry, the respective rates being: For the third week, 24 against 29; for the fourth week, 16 against 16;

for the fifth week, 9 against 12; and for the sixth and later weeks, 21 against 19. This close harmony of experience for the third and later weeks would suggest, with a reasonable degree of conclusiveness, that the true accident hazard in Government shops is about the same as in the iron and steel industry. If this is so, then there should be a similar harmony in accident rates for the first and second weeks, inasmuch as there is nothing in the character of the work in the Government shops to warrant radical departure from the experience of other industries. Examination of the accident rates for the first and second weeks, however, show extraordinary lack of harmony. For the first week the accident rate in navy yards for 1914 was only 33, according to the reports, as against 152 in the steel industry and in the second week only 9 as against 68.

Inasmuch as it is known that the accident rates of the steel industry err, if at all, in the direction of being too low for the early weeks, the conclusion seems clear that the rates as shown for the navy yards (as also for the arsenals) are entirely too low, an error that could only be explained by failure to report short-time disabilities in full. Estimating the true situation from the data of the table, it would appear that perhaps as many as three-fifths of the minor accidents in Government shops are not reported.

The above argument would seem to establish the fact that the peculiarities in the accident reports from Government shops are explainable on the ground of faulty reporting. Moreover, as regards the specific charge of malingering, the following point may be emphasized: If the practice of stretching disabilities from the first and second week to the third week (in order to benefit from the Compensation Act) existed in any considerable degree, whether from actual malingering or in the administration of the law, the accident rate for the third week would necessarily show an undue swelling as compared with rates for the other weeks. The data in Table 4, however, show no indication of this. For the navy yards, 1914, the rate for the third week is 24 and the highest rate in any of the years and shops listed is 28, as against a rate of 29 for the steel industry. In other words, the Government shops, as a whole, show slightly lower rates for the third week than does the steel industry. Similar comparison can not be made directly with the machine building industry, inasmuch as the total hazard for machine building is so much lower than for the steel industry. It may be noted, however, that the machine building rate for the third week is, in proportion to its lower total rate, not very different from the corresponding rate for the steel industry. Thus if the total rate for machine building (103) is raised to a level with the total of the steel industry (296) then the machine building rate for the third week would be approximately 22, which is but slightly lower than the navy

yard rate for 1914 and is higher than the Government shop rates in three of the six years listed.

ACCIDENT REPORTS IN GOVERNMENT SHOPS AND IN THE INDUSTRIES OF IRON AND STEEL AND MACHINE BUILDING.

Week in which disability terminated.	Government shops.						Iron and steel (1910).	Machine building (1912).		
	Arsenals.			Navy yards.						
	1912	1913	1914	1912	1913	1914				
First week.	89	138	197	535	534	501	9,889	7,680		
Second week.	27	26	46	153	136	140	4,433	2,048		
Third week.	57	69	89	339	432	362	1,915	869		
Fourth week.	57	52	61	257	271	240	1,014	512		
Fifth week.	15	24	19	129	125	132	807	272		
Sixth week and later.	55	36	57	320	304	321	1,251	621		
Total.	300	345	469	1,733	1,802	1,696	19,309	12,002		

Table 1.—Number of Disabilities Terminating in Specified Week.

	1912	1913	1914	1912	1913	1914	1910	1912
First week.	30	40	42	31	30	30	51	64
Second week.	9	8	10	9	8	8	23	17
Third week.	19	20	19	20	24	21	10	7
Fourth week.	19	15	13	15	15	14	5	4
Fifth week.	5	7	4	7	7	8	4	2
Sixth week and later.	18	10	12	18	17	19	6	5
Total.	100	100	100	100	101	100	100	100

Table 2.—Percentages.

	1912	1913	1914	1912	1913	1914	1910	1912
First week.	30	40	42	31	30	30	51	64
Second week.	9	8	10	9	8	8	23	17
Third week.	19	20	19	20	24	21	10	7
Fourth week.	19	15	13	15	15	14	5	4
Fifth week.	5	7	4	7	7	8	4	2
Sixth week and later.	18	10	12	18	17	19	6	5
Total.	100	100	100	100	101	100	100	100

Table 3.—Percentages (Excluding All Under the Third Week).

	1912	1913	1914	1912	1913	1914	1910	1912
Third week.	31	38	39	32	38	34	39	38
Fourth week.	31	29	27	25	24	23	20	23
Fifth week.	8	13	8	12	11	13	16	12
Sixth week and later.	30	20	25	31	27	30	25	27
Total.	100	100	100	100	100	100	100	100

Table 4.—Accident Frequency Rates (per 1,000 300-Day Workers).

	1912	1913	1914	1912	1913	1914	1910	1912
First week.	22	35	43	34	35	33	152	66
Second week.	7	7	10	10	9	9	68	18
Third week.	14	18	19	22	28	24	29	8
Fourth week.	14	13	13	17	18	16	16	4
Fifth week.	4	6	4	8	8	9	12	2
Sixth week and later.	14	9	12	21	20	21	19	5
Total.	75	88	101	112	118	112	296	103
Number 300-day workers.	3,992	3,950	4,612	15,608	15,226	15,094	65,147	115,703

CONFERENCE OF STATE MINE INSPECTORS.

A conference of State mine inspectors and representatives of industrial compensation commissions, which was the result of an invitation issued by the Secretary of the Interior to the governors of the various States, was held in Washington, D. C., February 24

and 25. There were 30 State and Federal officials present in addition to a number of representatives of insurance organizations, and others interested in the matter of safety as related to industrial plants.

The meeting was an enthusiastic one and those present showed the spirit of cooperation, all apparently being in agreement as to the necessity of standardizing all data relating to the reporting of accidents, and their classification. One of the principal objects of the meeting was to bring about a cooperative arrangement between the various State organizations and Federal bureaus interested in the collection of statistics relating to the mining industry.

With the view of simplifying the collection of statistics and at the same time relieving the operator from rendering so many reports, it was the consensus of opinion that data should be so collected by the State organization as to be sufficient for all purposes. It was the purpose of this meeting so to standardize and broaden the collection of data as to include in one report sufficient information for the State mine inspector, the industrial compensation commission, and Federal bureaus.

The question of the calendar year was brought up and all agreed that the calendar year should be adopted in preference to any fiscal year, and the representatives of the States where the fiscal year is at variance with the calendar year pledged themselves to do all they could to bring about legislation to have the calendar year adopted. One of the arguments in favor of the calendar year was that with the enactment of the Federal income tax law a report under oath was required of the exact financial condition of the company on the 31st of December. This law, being Federal, applies to all of the States, and is an important argument in favor of the calendar year.

The principal question discussed at the meeting was the matter of standard forms for recording and publishing matter relating to mine equipment, labor, and accidents. For information relative to mine equipment the form should call for a directory of mines in actual operation during a calendar year; data relating to power equipment; ventilating equipment; mining methods; and haulage systems.

With reference to accidents, standard forms for the reporting of fatal and nonfatal accidents were discussed, to be so drawn that sufficient information would be available for anyone interested in the study of accidents. The forms proposed were applicable not only to coal and metal mines, but to metallurgical plants, quarries, and coke ovens.

The result of the meeting was the appointment of a committee to prepare an official report of the proceedings, which will be published by the Bureau of Mines as a bulletin and will contain copies of all of the standard forms as agreed to at the meeting or revised by the committee.

The coal-mining industry is represented on this committee by James E. Roderick, chairman, chief, department of mines, Harrisburg, Pa., and James Dalrymple, chief inspector of mines, Denver, Colo. The metal-mining industry is represented by George H. Bolin, State mine inspector, Phoenix, Ariz.; and W. B. Orem, State metal-mine inspector, Helena, Mont. The other members of the committee are L. W. Hatch, chief statistician, New York Industrial Commission, Albany, N. Y.; John Bohlander, president, Illinois State mining board, Pekin, Ill.; and Albert H. Fay, mining engineer, Bureau of Mines, as secretary of the committee.

There was a formal discussion concerning the standardization of mining laws and regulations as relating to safety in coal mines, the point being made that the miners are migratory and in going from one State to another a different set of laws, rules, and regulations is encountered, with which they are not necessarily familiar. It was agreed that the Bureau of Mines should draft a standard set of rules and regulations for coal mines, similar to that prepared by the bureau relating to metal mines and published as its Bulletin No. 75.

Another subject discussed was the adoption of certain universal danger signals, so that a miner from one State would meet the same type of signals in a mine in another State, and at once recognize its meaning.

WORKMEN'S COMPENSATION IN SOUTH AMERICA.

A few years ago the statement was frequently made that in the progressive industrial countries of Europe more adequate provision for redress for industrial injuries was being made than in the United States. Later it was said that even the less progressive countries were taking precedence in this respect; and while a majority of the States of the Union have now adopted the principle of compensation in lieu of that of liability, this country is not yet able to boast of any superiority as compared with others, some of them even of slight industrial development.

The latest countries to adopt the principle of workmen's compensation, of which the bureau has knowledge, are Argentina and Colombia. The former country passed an act dated September 27, 1915, establishing workmen's compensation and including in its scope factories, workshops, and industrial establishments in which any power other than human power is used for the work, and also forest and agricultural industries in which mechanical motive power is used. Transportation, mining, quarrying, and building work are mentioned, while the list may be extended to other industries or undertakings by the executive authority. All employees are covered whose annual

wages do not exceed \$3,000.¹ No responsibility exists where the accident was intentionally caused by the injured person, or resulted exclusively from his serious fault; so also when the accident was due to force majeure not connected with the work. The employer must furnish medicines and medical treatment until recovery, death, or a determination of permanent disability, unless the employee declines the provision offered. To entitle to compensation the disability must continue for more than six days. The compensation includes burial expenses not exceeding \$100, and a benefit equal to a thousand days' wages, but not more than \$6,000. This benefit is payable either in case of death or for permanent total disability. For permanent partial disability the compensation is to be 1,000 times the amount of the reduction of the daily wages due to the injury; while for temporary total disability half the daily wage is to be paid until the injured person is able to return to work. After the lapse of one year, if such total incapacity still exists, it is to be considered as permanent and so compensated, the first year's payment being considered as part of the total award. Employers may insure their liability under the act, but must not reduce the amount of the benefits provided in it. The executive power issues regulations and is to schedule injuries to be considered as total and partial disablements. Nonresident alien dependents are excluded from benefits.

Industrial diseases are compensated subject to proof of having originated exclusively from the class of work carried on by the victim during the year previous to his incapacity.

Administration and enforcement provisions are added, and compensation payments are exempted from execution, assignment, etc.

Another enactment bearing date of June 18, 1913, is applicable only to employment on public works. The provisions of this act for death and for permanent total disability are the same as in the later law above described. For permanent partial disability compensation is to be awarded according to the degree of incapacity, and a schedule of specific percentages is established ranging from 60 per cent of total disability for the loss of a right arm or hand, 50 per cent for the loss of a left arm or hand or of a leg or foot, 25 per cent for the total loss of an eye, and on downward for various fingers, the lowest rate being reached in a rate of 5 per cent for the loss of the great toe and 3 per cent for the loss of any other toe. No reference is made to industrial diseases in this act.

The statute of Colombia bears date of November 15, 1915, and is compulsory in its effect, being applicable to public lighting plants, waterworks, railways and street cars, breweries and distilleries, building and masonry work where more than 15 workmen are em-

¹Amounts are stated in Argentina paper currency of a value of approximately 44 cents on the dollar.

ployed, mines and quarries, large boats, Government works, and manufacturing plants using mechanical power. The law of Colombia is less liberal than that of Argentina in respect to the cases excluded on account of fault, imprudence, and voluntary causative act of the injured person. There are four classes of compensation: For temporary incapacity, for which there must be payment of two-thirds of the wages for its duration; for permanent partial incapacity, calling for the payment of full wages for periods ranging from 90 to 140 days, according to its extent; for permanent total incapacity, calling for the payment of one year's wages; and for death within 60 days following the accident, calling for a payment of one year's wages to the heirs. In every case medical attendance is to be furnished at the employer's cost. Employers having less than \$1,000¹ capital are not required to pay compensation, but must furnish the prescribed medical attendance. Insurance of the prescribed obligations is authorized.

WAGES OF MINERS IN GERMANY DURING THE FIRST YEAR OF THE WAR.²

According to statistics recently published by the Prussian superior mine offices the average wages per shift paid to coal miners during the first four quarterly periods after the outbreak of the war were as follows:

WAGES PER SHIFT OF COAL MINERS IN GERMANY, 1914 AND 1915.

District.	1914		1915	
	Third quarter.	Fourth quarter.	First quarter.	Second quarter.
Upper Silesia.....	\$0.869	\$0.814	\$0.857	\$0.902
Lower Silesia.....	.828	.807	.812	.857
Ruhr district.....	1.242	1.197	1.233	1.283
Saar district (State mines).....	1.052	1.012	1.004	1.026
Aix la Chapelle district.....	1.142	1.095	1.114	1.138
Left Lower Rhine district.....	1.307	1.271	1.278	1.349

From the above table it is evident that during the second half of 1914, i. e., during the period in which, on account of the outbreak of the war, the increase of the cost of living was largest, the wages of coal miners decreased. The miners' federations made representations to the minister of commerce which resulted in pressure being brought to bear on the mine owners to increase the shift wages of their workmen, and in the second quarter of 1915 small increases were granted in all mines. In the State mines, however, the average

¹ The Colombian gold dollar has the same value as that of the United States; the paper dollar, just above 95 cents.

² Die Entlohnung der Bergarbeiter im ersten Kriegsjahre in Soziale Praxis und Archiv für Volkswirtschaft. Berlin, 1915, Vol. XXV, No. 4, Oct. 28, 1915, p. 89.

wage paid during the second quarter of 1915 is still below that paid during the corresponding quarter of 1914.

In considering the average wages shown here it should not be forgotten that the character of the working force in the coal mines has changed since the beginning of the war. Large numbers of coal miners were called to military duty and unskilled juvenile and female workers took their places, which naturally decreased the average working efficiency, a fact which became evident in the earnings of contract workers paid on a tonnage basis. The wages of miners proper, i. e., miners and apprentice miners working below ground, show larger increases than those of unskilled workers.

The average daily wages for the individual classes of mine workers during the second quarter of 1914 and of 1915 are shown in the table following:

AVERAGE DAILY WAGES OF MINE WORKERS IN GERMANY DURING THE SECOND QUARTER OF 1914 AND OF 1915.

District.	Average daily wages of—									
	Miners proper.		Other workmen employed below ground.		Workmen employed above ground.		Male juvenile workers.		Female workers.	
	1914	1915	1914	1915	1914	1915	1914	1915	1914	1915
Upper Silesia.....	\$1.159	\$1.257	\$0.840	\$0.909	\$0.771	\$0.838	\$0.295	\$0.336	\$0.309	\$0.343
Lower Silesia.....	.935	.978	.830	.871	.754	.802	.319	.359	.412	.431
Ruhr district.....	1.473	1.585	1.075	1.116	1.040	1.100	.343	.393	.....	.....
Saar district (State mines).....	1.209	1.209	.983	.981	.916	.933	.340	.367	.....	.....
Aix la Chapelle district.....	1.292	1.342	1.031	1.061	.981	1.026	.390	.400	.....	.....
Left Lower Rhine district.....	1.461	1.552	1.188	1.216	1.050	1.109	.376	.376	.....	.....

RESTRICTIONS ON THE OUTPUT OF TEXTILE ESTABLISHMENTS IN GERMANY.

According to the Reichs-Arbeitsblatt (November, 1915), the great shortage of raw materials for textile manufacture in Germany caused the Federal Council to enact measures limiting the output of textile establishments. A decree of November 7, 1915, provides that in industrial establishments in which yarns, threads, fabrics, plaited or knit goods, cordage, machine lace, wadding, or felt are entirely or partially manufactured from cotton, wool, shoddy, flax, jute, ramie, hemp, or other cordage fibers, workmen may be employed only during a maximum of five days per week, while the daily hours of labor may not exceed the average daily hours of labor current during June, 1915, and may in no instance be in excess of 10 hours per day exclusive of rest periods. The central State authorities, if they so desire, may place further limitations upon the daily hours of work and the number of days per week in establishments of the kind indicated.

For infractions of the decree by employers, fines are authorized up to 1,500 marks (\$357) or imprisonment up to three months.

An article in *Soziale Praxis* (Berlin), of November 11, 1915, notes that these restrictions are working great hardship on the textile workers, inasmuch as in normal times their wages are generally considerably lower than those of workers in other industries. Weekly wages of from 7 to 10 marks (\$1.67 to \$2.38) for female workers, and from 14 to 15 marks (\$3.33 to \$3.57) for male workers represent the average wages paid in some important textile districts.

These wages in normal times, it is claimed, are hardly sufficient for a bare existence at a minimum standard of living, while few of the workers can manage to make any savings. Their present lessened earnings, having regard for the prevailing high cost of living, have consequently made their condition so precarious that numerous municipalities have been compelled to give them pecuniary unemployment aid; but as municipal aid was in frequent instances lacking or insufficient, the Federal States have proposed ameliorating measures. A Government committee has been formed to deal with the problem in Saxony and also in Bavaria and some of its districts. In Bavaria it is proposed to give aid to all unemployed and part-time workers through the municipalities and district towns. Two-thirds of the required fund are to be raised by the Empire and State while employers have promised to contribute one-sixth and the municipalities themselves are to raise the remaining one-sixth.

In Baden, Bavaria, and Saxony recent reports indicate that textile workers are now receiving adequate assistance, while some difficulty has been encountered in the matter in Prussia. In Silesia, Prussia, it is reported that the problem is being met by establishing sewing rooms and distributing work to be done at home.

MORTALITY AND MORBIDITY OF ITALIAN IRON AND STEEL WORKERS.

Based on statistics of the morbidity and mortality of the working force of an iron and steel company (*societa siderurgica*) of Savona, Italy, during the two decades 1894-1913, Dr. A. Peri¹ has made an interesting contribution to the study of the hygiene of iron and steel workers. After 15 years of medical practice, especially among iron and steel workers in the large industrial center, Sestri Ponente, the author has come to the conclusion that the iron and steel industry is a comparatively healthful one, as shown by the longevity of the great majority of the workers and their resistance to infection in general, particularly tuberculosis.

¹ *La patologia professionale degli operai siderurgici*, Dr. A. Peri in *Bollettino dell' Ufficio del Lavoro* (semimonthly issue): Rome, 1915, Vol. III, No. 20, Oct. 16, p. 256.

The author makes a study of 23,887 diagnoses collected between 1894 and 1913 by the workers' aid fund in the establishment at Savona. He attributes only a relative value to these diagnoses, as they could not subsequently be confirmed or modified by the physicians who had entered them in the register on the first day of sickness. Moreover, it is only since 1904 that the total number of workmen employed in the establishment is known for each year, so that the rate of morbidity and of mortality can only be determined for the last decade.

During the 20-year period under review, the annual average number of cases of sickness was 1,194, and that of deaths 8. The lowest morbidity, with 300 cases of sickness, was established for 1894 and the highest, with 2,028 cases of sickness, for 1909. The death rate was lowest in 1897 (2 deaths) and highest in 1913 (18 deaths). The death rate per 100 sick workmen was lowest in 1897 and 1899 (0.3 per cent) and highest in 1896 (1.2 per cent), while the average rate was 0.6 per cent. During the second decade the death rate computed per 100 workmen varied between 0.1 in 1906 and 1908 and 0.5 in 1904 and 1913, the average being 0.3.

The rate of morbidity for the last decade varied between 41 per 100 workmen in 1905 and 64.2 in 1907, the average rate for the decade being 53.4. The morbidity risk is, therefore, rather high, as more than half of the employed workmen were taken sick each year. If, however, the combined cases of sickness are examined, it is found that the most frequently observed cases are not of a serious character.

Iron and steel workers must possess physical qualities and special aptitude not always required for other occupations. They must be of robust constitution, have considerable development of the muscles, and sufficient organic resistance to be able to perform fatiguing tasks in overheated surroundings. Normal visual and aural capacity is required. Those employed in rolling mills must, moreover, possess great agility in their movements, a true eye, and promptness in action.

The author calls attention to the frequent cases of malnutrition observed in these workers after several years of employment. Steel workers, especially, are often found to suffer from excessive corpulency and obesity; cases of chronic articular and muscular rheumatism, gout, vitiated metabolism, and diabetes are quite frequent.

The heavy tools and working materials produce occupational stigmata on the tissues, especially on the epidermis of the palm of the hand and the inside of the fingers, such as bursæ, tenosynovitis (combined inflammation of a tendon and of its sheath), etc., and in the case of old iron and steel workers, even incomplete extension of the fingers, which gives to the hand a clawlike appearance.

Acute carbon-monoxide poisonings, which sometimes result in death, are frequent among blast furnace workers, but very rare among workers in the other departments, only a few cases having occurred among attendants of gas generators in the steelworks.

Cases of neuralgia and lumbago are also frequent, which the author ascribes to the predisposition of individuals with vitiated metabolism to the influences of the rapid changes of temperature. Cases of influenza are also numerous. Under this diagnosis are included several forms of fever with vague pains, especially in the loins, which some physicians diagnose as so-called rheumatic fever.

Cases of hernia are more frequently found among iron and steel workers than among workers in other industries.

The rate of infectious diseases, especially tuberculosis in its various forms, is very low, only 11.3 per 1,000 of all cases being cases of tuberculosis of the lungs. The diseases of the digestive system show a rate of 259.9 per 1,000 cases of sickness.

To throw further light on the forms of sickness characteristic of iron and steel workers, the author concludes, would require a medical examination of the workers.

EIGHT-HOUR LAW IN URUGUAY.

The *Diario Oficial de la Republica Oriental del Uruguay*, volume 41, No. 2971, published the text of an eight-hour law enacted on November 17, 1915, and becoming effective three months from the date of publication.

The act makes it an offense for any person to work more than eight hours per day in any factory, workshop, shipyard, stoneyard, and earthworks or in harbors, on coasts or on rivers, or as clerks and laborers in industrial or commercial establishments, in railroad and street railway service, in loading and unloading ships, and in all occupations similar to those mentioned, as well as on public works.

The executive authority may permit an extension of the hours in exceptional cases, but in no case may the hours of actual labor exceed 48 for each six days' labor.

Daily rest periods are to be determined by the executive authority according to the needs of each industry.

No person employed the full legal hours in an establishment is permitted to be employed in any other establishment, but a person employed in one establishment for only a portion of the hours named may do additional work for another employer up to eight hours per day altogether.

Both the employer and the employee are subject to penalties for violations of the law in regard to overtime work, and the employer

is required to furnish all necessary information in that connection demanded by the labor inspectors, and becomes liable to penalties for refusing to give such information or for any obstruction in the exercise of the inspector's duties.

For the enforcement of the law 25 special inspectors are provided, and placed under the supervision of the Treasury Department. The law provides that the inspectors shall receive 1,800 pesos (\$1,861) each a year if employed in Montevideo, and 900 pesos (\$1,003) if employed elsewhere.

PUBLICATIONS OF THE INTERNATIONAL ASSOCIATION OF UNEMPLOYMENT AND OF ITS NATIONAL SECTIONS.

The International Association on Unemployment was organized in 1910 as a result of the joint efforts of numerous specialists and experts in the field of unemployment, students of the problem representing both employers and employees, municipal administrative officers and others dealing with problems of unemployment and their relief. The way may be said to have been prepared, however, for such an organization by the congress which had been held at Milan, Italy, in 1906,¹ as a part of a general international exposition. The International Congress of 1906 was called together by the Milan welfare society, Umanitaria. The congress of 1910, known as the Second International Congress on Unemployment—that of 1906 being known as the first—was called as a result of the efforts of a committee which met in Paris in 1909, composed very largely of representatives from Belgium, France, and Germany, university professors and official administrators, who were interested in the subject of unemployment. This committee perfected an international committee which organized the congress and prepared its program. The proceedings and papers of the congress were published in 1911.²

As stated in the by-laws which were drafted and adopted at the 1910 congress at Paris, the object of the association is to coordinate all efforts made in different countries to combat unemployment. Among the methods adopted to realize this purpose there may be noted the following: (1) The organization of a permanent international office to centralize, classify, and hold at the disposition of those interested, the documents relating to the various aspects of the struggle against unemployment in different countries; (2) the organization of periodical international meetings, either public or private; (3) the organization of special studies on certain aspects of the problem of unemployment and the answering of inquiries on these

¹ *Le Chômage*, publié sous les auspices de la Société Umanitaria. Paris, 1907. 273, [1] pp.

² *Compte-rendu de la Conférence Internationale du Chômage*. Internationale Konferenz über Arbeitslosigkeit. International Conference on Unemployment. Paris, 18-21 septembre, 1910. Paris, 1911. 3 vols.

matters; (4) the publication of essays and of a journal on unemployment; (5) negotiations with private institutions or the public authorities of each country with the object of advancing legislation on unemployment and obtaining comparable statistics and possibly agreements or treaties concerning matters of unemployment.

The membership consists of those attending the international congress of 1910, and those subsequently elected by the administrative committee.

The association is directed by a committee whose members are elected by the members of each of the national sections of the association. Each national association counting at least 10 members is entitled to one delegate on this committee and to one additional delegate for every 25 additional members, but not exceeding seven delegates in all. This committee appoints the executive officers of the international association, consisting of a president, vice president, secretary, assistant secretary, and treasurer, who are ex officio members of this committee. The committee and officers remain in office from one congress to another and may be reelected.

It is the purpose of the International Association on Unemployment to cooperate with the Permanent International Committee on Social Insurance and with the International Association for Labor Legislation, and eventually with all societies of similar aim. The right of representation at the periodical congresses of the association, on the committee, and possibly among the officers of the association, may be granted to these cooperating associations. It is proposed to cooperate with these associations also in the holding of meetings and perhaps to collaborate with them in the issue of certain publications. In actual practice it has worked out in some instances that the national sections of the International Association for Labor Legislation or of the Permanent International Committee on Social Insurance form likewise the national section of the International Association on Unemployment.

The first committee of the international association was chosen at the congress of 1910, which met in Paris and consisted of representatives from the following countries: France 4, Great Britain 4, Germany 4, Belgium 4, Switzerland 3, Holland 3, United States 3, Austria 2, Hungary 2, Italy 3, Sweden 1, Denmark 1, Russia, 1, Finland 1, Spain 1, Norway 1, Luxemburg 1, Australia 1, and Argentina 1.

The first general meeting of the association was held at Ghent, September 3 to 6, 1913. It is sometimes known as the Third International Congress on Unemployment, as it was in reality a continuation of the first one at Milan in 1906 and the second one at Paris in 1910. No congress has since been held. The international com-

mittee, the directing body of the association, however, held an international conference from September 6 to 9, 1912, at Zurich, Switzerland, as part of a so-called "social week," during which time there were in session at that place the International Association for Labor Legislation, the Second International Congress on Home Work, and the Third International Conference on Social Insurance.

The list of the publications of the international association and of its national sections, which follows, is in the nature of an annotated bibliography and has been cast into library cataloging form. Since the outbreak of the war, issues of periodicals of the international association and its national sections have been somewhat irregular in their appearance, while the bulletin of the international association has ceased to appear.

International Association on Unemployment. Bulletin trimestriel de l'Association internationale pour la lutte contre le chômage. Quarterly Journal of the International Association on Unemployment. Vierteljahreshefte der Internationalen Vereinigung zur Bekämpfung der Arbeitslosigkeit. Rédacteur en chef, Max Lazard, 34, rue de Babylone, Paris. Année 1 to date. Paris, 1911 to date.

The first issue of the bulletin appeared for the third quarter of 1911. It is devoted primarily to insurance against unemployment. Bulletin No. 2, for the last quarter of 1911, relates particularly to employment offices, their history and operations.

No. 1, 2 (consolidated issue) of 1912 is devoted to unemployment in its relation to the employment of children; No. 3, to unemployment and the movement of labor, and the placing of agricultural laborers; No. 4, to proceedings of the third meeting of the international committee on unemployment.

No. 1 of 1913 is devoted to unemployment relief principally; No. 2, to statistics of unemployment; No. 3, to international inquiry relative to the work of employment offices; No. 4, to unemployment and the movement of labor.

Nos. 1 and 2 of 1914 are devoted to a report of the proceedings of the general meeting of the association at Ghent, September 5 and 6, 1913; No. 2 also contains reports on unemployment insurance and on public works in their relation to unemployment.

[A letter to this Bureau from the editor states that the bulletin will not appear during the war.]

— *Statuts—statuten—statutes. Ghent, 1910.* [10] pp.

Contains the by-laws of the International Association on Unemployment, printed in French, German, and English, together with a list of the members of the first international committee and its officers.

— *Statuts—statuten—statutes. [Ghent, 1911.]* 114 pp.

Contains the by-laws of the international association, printed in French, German, and English, also a list of the members of the international and national committees and their officers, together with a list of the founders of the association.

— *General meeting, Ghent, 1913. First general meeting....Ghent, 3-6. September, 1913. [Ghent, 1913.]* [30] pp.

This pamphlet is issued in French, German, English, and Dutch and contains the announcement of the general meeting of the association to be held at Ghent, Belgium, September 3-6, 1913; also a list of the executive officers of the association, a list of the members of the international committee, and a statement of the general subjects to be discussed at the meeting. The by-laws of the association are appended.

— *General meeting, Ghent, 1913. Rapports. Paris, 1913, 1914.* 4 v.

— *Procès-verbaux des réunions et documents annexes. Paris, 1914.* 204 pp.

International Association on Unemployment. Supplément aux procès-verbaux des réunions. Rapport de M. Edouard Fuster sur l'Assurance-chômage. Paris, 1914. 36 pp.

The *Rapports* are four in number and have also been published in the issues of the quarterly bulletin of the association. The first is a preliminary report on international unemployment statistics, prepared for the use of the joint conference, at Zurich, September 9, 1912, of the special committees appointed by the International Statistical Institute and the International Association on Unemployment. It was prepared by Louis Varlez. It contains, also, schedules used by various official bodies in different countries engaged in collecting unemployment statistics. The second contains the result of the international inquiry into unemployment offices, their organization and statistics of operations; the third is the report of the investigations in different countries on the relation of unemployment and the mobility of migratory seasonal labor; and the fourth treats of unemployment insurance, and unemployment in its relations to public works, their organization and execution.

The *Procès-verbaux* are the proceedings of the meeting of 1913 at Ghent and contain the text of all resolutions passed, these appearing in French, English, and German.

The supplement to the proceedings is a report on unemployment insurance. In the resolutions of the general meeting Mr. Fuster was asked to continue his investigations on the subject.

— *International committee. [Miscellaneous pamphlets.] Ghent, 1912.* (1) *Rapport général Agenda de la séance, 1912.* (2) *Rapport préliminaire sur la statistique internationale du chômage, par L. Varlez, 1912.* (3) *Rapport sur la matière de la bibliographie du chômage, par MMrs. Szabo, Varlez, 1912.* (4) *Rapport de M. W. F. Treub . . . sur l'influence que peut exercer sur le chômage le mode d'exécution des travaux publics, 1912.* (5) *Rapport sur le chômage et des migrations internationales de travailleurs . . . par I. Ferenczi, 1912.* (6) *Rapport . . . relatif à la statistique internationale du placement, 1912.*

These six unnumbered pamphlets, issued by the international committee which acts as a governing body of the International Association on Unemployment, contain the summaries of the reports made to the international committee which met at Zurich, Switzerland, September 6-9, 1912. As arranged, when bound in one volume, No. 1 contains a report of the work of the committee and the program for its meeting of 1912; No. 2, a preliminary report upon the statistics of unemployment by Louis Varlez, secretary of the special committee appointed jointly by the International Institute of Statistics and the International Association on Unemployment; No. 3, principles involved and a tentative outline for the preparation of an international bibliography on unemployment, reported in connection with the proposal by the association to issue through the municipal library of Budapest, Hungary, a comprehensive bibliography on unemployment. The outline classification of this bibliography consists of two parts. The first part deals with unemployment theoretically and descriptively, while part two relates to remedies for unemployment; No. 4, a report by M. W. F. Treub, president of the Dutch section of the international association, discussing the relation of unemployment to the execution of public works; No. 5, the problem of unemployment in its relation to the international movement of labor, by Dr. I. Ferenczi, secretary of the Hungarian section; No. 6, a report of the secretary general on the plan submitted by Drs. Freund and Zacher relative to international employment office statistics.

— *American section. Unemployment: a problem of industry, New York, 1914. 295 pp.*

Under this title was issued volume 4, No. 2, May, 1914, of the American Labor Legislation Review, which contains the proceedings of the first national conference on unemployment, in New York City, February 27 and 28, 1914.

At the close of the fifth annual meeting of the American Association for Labor Legislation, in 1911, a committee was appointed to represent that organization in its relations with the International Association on Unemployment. This committee was in turn represented subsequently in September, 1912, at the international conference in Zurich, Switzerland. Growing out of this cooperation with the International Association on Unemployment there was formed out of the American committee the American section of the International Association on Unemployment, which section is practically identical with the American Association for Labor Legislation.

The program of the conference included the discussion of organization to combat unemployment; the irregularity of employment; public responsibility for the existence of unemployment; insurance against unemployment; constructive proposals; employment exchanges in the United States; present status of unemployment insurance; and new legislation on unemployment exchanges. There is appended a brief list of references on unemployment, employment exchanges, and unemployment insurance prepared in cooperation by the American Association for Labor Legislation, the United States Bureau of Labor Statistics, and the Library of Congress.

Resolutions of the conference urged the establishment in the Federal Department of Labor of a bureau of distribution, with power to establish employment exchanges throughout the country to supplement the work of State and municipal bureaus, to act as a clearing house of information, and to promote the distribution of labor. Upon the State legislatures the conference urged the establishment or reconstitution of State free employment agencies conforming to certain essential principles as laid down.

International Association on Unemployment. American section. A practical program for the prevention of unemployment in America, submitted for criticism and suggestions by John B. Andrews. New York, American Association on Unemployment, 1914. 18 pp.

Consists of an outline of a general scheme of economic reconstruction and organization relating to the problem of unemployment. The outline presents six principal topics: (1) Regularization of industry; (2) establishment of public employment exchanges; (3) systematic distribution of public work; (4) prevention or distribution of surplus labor; (5) unemployment insurance; (6) constructive care of the unemployed.

— *Austrian section. Systeme der arbeitslosenunterstützung: Vortrag gehalten in der Gesellschaft Oesterreichischer Volkswirte von Hofrat Prof. Dr. E. Schwiedland. Vienna, 1914. 16 pp. (Flugheft 1.)*

The report of a lecture before the Austrian Economic Association. Dr. E. Schwiedland suggests a system of subsidized unemployment insurance, without contribution from the workers, which will include both organized and unorganized workmen. It is proposed to pay municipal subsidies to organized workmen through the municipal employment exchanges. He notes that this system differs from the three already in existence, commonly known as the Ghent system, the Scandinavian system, and the English system.

— *Belgian section. La lutte contre le chômage. Organe de la Section belge . . . Année 1, May, 1912-1914. Ghent, 1912-1914.*

This is the official periodical organ of the Belgian section of the International Association. The first number appeared for May, 1912, and three numbers completed the year. For 1913 there appeared three issues; and only one number (January to March) appeared in 1914, since which time it has ceased to appear. The usual articles relating to unemployment, labor exchanges, unemployment insurance, irregularity of employment, and the execution of public works in relation to unemployment appeared in its pages, with particular reference, however, to Belgium. Each number contains book reviews and bibliographical notices.

International Association on Unemployment. Dutch section. Tijdschrift der Nationale vereeniging tegen de werkloosheid. Orgaan der Vereeniging van nederlandse arbeidsbeurzen . . . jaarg. 1 to date. 1912 to date. Haarlem, Boissevain en Co., 1912 to date.

This periodical constitutes the organ of the National Association on Unemployment for the Netherlands, and of the association of Dutch employment exchanges; the former of which is the Dutch section of the International Association on Unemployment. It appears in four or five issues each year, although occasionally some issues are consolidated. The first issue appeared in 1912, while the latest received in the Bureau is that for January, 1916. The usual topics on unemployment in its various aspects are discussed in its pages, with particular reference, however, to the Netherlands. Each number contains book reviews and bibliographical notices.

— *French section. Le placement public à Paris, situation actuelle et projets de réforme, par Louis Varlez, Ch. Picquenard, Darcis Georges Alfassa et Max Lazard. Paris, 1913. 325 pp.*

This volume contains the stenographic reports of five public conferences held under the auspices of the French section in March, 1912, at the École des Hautes Études Sociales. There were discussed the following topics: German and English employment office methods; the placement of labor in Paris; abuses and defects in the work of employment offices; the placement of women and children; public employment offices of Paris and the program of the French association on unemployment; Methods of the public employment office of Berlin.

— *Circulaires du secrétariat général. No. 6-7, 9-12, 15-19, 22-33. No. 6-19 not monographs; No. 22, La guerre et le chômage en France, 1915; No. 23, Le chômage et la guerre en Grande-Bretagne; No. 24, La lutte contre le chômage au Danemark pendant la guerre; No. 25, Le placement public en Grande-Bretagne pendant la guerre; No. 26, La guerre et le chômage en Norvège; No. 27, Le recrutement de la main-d'œuvre agricole en France; No. 28, La guerre et le chômage aux Pays-Bas; No. 29, L'organisation du placement public en France; No. 30, Le guerre et le chômage en Espagne; No. 31, L'orientation professionnelle de la jeunesse ouvrière et la crise de l'apprentissage; No. 32, Note sur l'assemblée générale statutaire du 29 Octobre 1915; No. 33, La guerre et le chômage en Italie.*

These are fugitive circulars which, beginning with No. 22, have appeared as separate monographs, while numbers prior thereto have dealt with two or more subjects discussed at the meetings of the French association on unemployment. The contents of the monographs are as follows: No. 22, The war and unemployment in France; No. 23, The war and unemployment in Great Britain; No. 24, The struggle against unemployment in Denmark during the war; No. 25, Work of public employment exchanges in Great Britain during the war; No. 26, The war and unemployment in Norway; No. 27, Recruiting agricultural labor in France; No. 28, The war and unemployment in the Netherlands; No. 29, The organization of public employment offices in France; No. 30, The war and unemployment in Spain; No. 31, Vocational guidance of youth and the present crisis in the evolution of apprenticeship; No. 32, The general meeting of October 29, 1915; No. 33, The war and unemployment in Italy.

— *German section. Schriften der Deutschen gesellschaft zur bekämpfung der arbeitslosigkeit. Berlin. No. 1. Die Vergebung der öffentlichen arbeiten in deutschland im kampfe gegen die arbeitslosigkeit, by Dr. Ernst Bernhardt. Berlin, 1913. 55 pp. No. 2. Der gegenwärtige stand der arbeitslosenfürsorge und versicherung in Deutschland. Berlin, 1912. 138 pp.*

The first volume noted above is the beginning of a series of monographs published by the German section of the International Association on Unemployment. In pursuance of a resolution of the international association, the individual national sections had undertaken an investigation as to the influence of the proper distribution of public works upon unemployment. The result of the investigation made in Germany is submitted under the principal heads following: The problem of the movement of

labor and the principles for its solution; Measures taken in that respect by public corporations; Present methods employed by the Empire and the Federal States, including the State administration of railroads; The economic and technical difficulties connected with the movement of labor in relation to the condition of the labor market; Distribution of public works in large German municipalities in periods of economic depression; Difficulties in the movement of labor as experienced by municipalities; The awarding of public contracts by trades, and its importance for the state of the labor market.

The second monograph gives the results of an inquiry into the development and present state of the care for the unemployed and of unemployment insurance in German municipalities and towns. It is an historical and statistical account of the development of institutions dealing with the problems of unemployment and its relief. The text of communal ordinances regulating the care for the unemployed is reproduced in an appendix.

International Association on Unemployment. Hungarian section. A Munkanélküliség elleni küzdelem magyarországi, egyesületének kiadványai. Budapest, 1911-1915. (Publications of the Hungarian Association on Unemployment.)

These are serially numbered monographs, constituting the publications of the Hungarian section, nine of which have already appeared. The first number, which appeared in 1911, contains miscellaneous groups of articles relating to the international conference of 1910 at Paris, an account of the international association and of the Hungarian section, together with the by-laws of these two associations. The contents of Nos. 2 to 9 are as follows: No. 2, 1913, Unemployment and the migration of laborers; No. 4, 1914,¹ The economic situation and unemployment (proceedings of the Hungarian section, Apr. 30, 1913); No. 5, 1914, Unemployment and labor in the munition industries (September conference, 1914); No. 6, 1915, Unemployment and crop insurance, 1914 (February conference, 1915); No. 7, 1915, The war and its effect on the earning capacity of women (March conference, 1915); No. 8, 1915, Unemployment and the disturbed conditions of work in agriculture in Hungary, by Béla Balkanyi; No. 9, 1915, The economic status of incapacitated persons (April conference, 1915).

A Munkanélküliség elleni küzdelem. A Nemzetközi egyesület magyar osztályának közleményei. Budapest, 1912 to date. (The struggle against unemployment; organ of the Hungarian section of the International Association on Unemployment. Ed. Dr. Imre Ferenczi.)

This is the official periodical organ of the Hungarian section of the international association, the first volume of which appeared December, 1912, with the latest issue received, that of June, 1915. There are discussed in its pages the usual problems of unemployment in its various aspects. Particular reference is, however, given to unemployment among agricultural laborers, as farming plays such a large share in the economic situation in Hungary.

¹ No. 3 is lacking from the Bureau's series.

OFFICIAL REPORTS RELATING TO LABOR.

UNITED STATES.

California.—*Industrial Welfare Commission. Report on wage board in the fruit and vegetable canning industry. [San Francisco, 1916.] 16 pp.*

Minimum wages adopted by the wage board January, 1916, for women employees in the canning industry, after presentation of recommendations by both employers and employees. Hearings are to be held by the commission before the final adoption of the scales recommended by the board.

—*LOS ANGELES. Municipal Free Employment Bureau. Second annual report, 1914-15. [Los Angeles, 1915.] 16 pp.*

The bureau was established on January 2, 1914, and this is a report of its operations for the fiscal year ending June 30, 1915. The work of the bureau is divided into three divisions—commercial, industrial for men, and household for women.

The following summary shows the results of the bureau's operations for the year:

Divisions.	Persons registered.	Applications by employers.	Positions filled.
Industrial (men).....	11,917	19,315	18,677
Household (women).....	6,095	6,762	5,446
Commercial.....	4,080	1,825	1,215
Total.	22,092	27,902	25,338

Based upon the number of vacancies registered by employers and the positions filled, the bureau can claim 90.8 per cent efficiency.

Massachusetts.—*Bureau of Statistics. Ninth annual report on the State free employment offices for the year ended November 30, 1915. Boston, 1916. 43 pp.*

The four State free employment offices of Massachusetts are located, respectively, at Boston, Springfield, Worcester, and Fall River. During the nine years since the first office was opened in Boston 197,041 positions have been filled by them. During the first year of their operations, 1907, there were filled 15,510 positions. The maximum filled, 29,117, was in 1913. The positions filled by all offices during the year ended November 30, 1915, were distributed among several industries as follows:

NUMBER OF MALES AND FEMALES SECURING POSITIONS THROUGH THE STATE EMPLOYMENT OFFICES DURING YEAR ENDED NOV. 30, 1915.

Occupations.	Males.	Females.	Total.
Agricultural pursuits.....	1,798	.....	1,798
Apprentices.....	166	6	172
Domestic and personal service.....	6,270	9,925	16,195
Manufacturing and mechanical pursuits.....	4,631	1,631	6,262
Professional service.....	28	8	36
Trade and transportation.....	1,697	435	2,132
Other trades.....	63	31	94
Total.	14,653	12,036	26,689

These conditions show an improvement over conditions prevailing during the preceding year, an improvement which is also substantiated by the personal report of the different superintendents.

The operations of the four offices during the year ending November 30, 1915, are contained in the following table:

VOLUME OF BUSINESS DONE BY STATE EMPLOYMENT OFFICES DURING YEAR ENDING NOV. 30, 1915.

Classification.	Working days.	Number of applications from employers.	Aggregate number of persons called for.	Positions offered.	Positions filled.	Per cent of positions filled of persons called for.
Boston.....	304	15,130	17,847	30,532	14,491	81.20
Springfield.....	¹ 305	6,296	7,571	9,615	6,106	80.65
Worcester.....	¹ 305	5,926	7,316	10,365	5,150	70.39
Fall River.....	¹ 279	1,104	1,172	1,068	942	80.38
Total for four offices.....	.....	28,456	33,906	51,580	26,689	78.71

¹ Springfield, Worcester, and Fall River offices had 26 working days in June.

The actual expenses of the four offices for the year were \$33,420.51, there having been appropriated \$35,500.

The director of the bureau of statistics, under whose jurisdiction the offices are placed, recommends that a special board be established to have charge of these offices in the future on the ground the management of such offices should be a specialized function.

Massachusetts.—*State Board of Labor and Industries. Licensed workers in industrial home work in Massachusetts; analysis of current records under the auspices of the Bureau of Research, Women's Educational and Industrial Union. Boston, 1915. 153 pp. (Industrial Bulletin No. 4.)*

In 1913 the State board of labor and industries organized a home-work division and employed investigators to enforce the home-work law. In July, 1914, the attorney general held that these investigators were inspectors under the law, and as the full quota of authorized inspectors had been filled the continued employment of the home-work investigators would have been illegal. The division was therefore discontinued. However, as a result of its activities during 10 months a considerable amount of data concerning home work in Massachusetts was collected. These have now been analyzed and presented in the work listed above.

In the 10 months of its existence the home-work department made 11,830 visits for the purpose of granting licenses and of regulating conditions under the home-work act. As a result 6,218 persons out of the 7,765 applying received licenses. Only 175 applicants were refused licenses and for the following reasons: Because of disease, 23 per cent; poor sanitation, 51 per cent; other causes, 26 per cent. But as other applicants did not desire work or had moved or given the wrong address, an additional 1,372 should be added to the above number, so that 1,547, or 20 per cent, failed to secure licenses.

The analysis of the schedules of inspection collected by the home-work division during its existence threw light upon the different phases of home work; it disclosed the location of home workers in the State; the location and character of the industries giving out home work; housing conditions; conditions of the workroom; nativity of workers; nativity and age of family members; the share and responsibility of mothers in the work of family groups; in short, the economic status of the families in general.

The results of the investigation show that between 6,000 and 7,000 licenses for home work are granted each year; that 8,000 applications are received each year; that the granting of licenses requires about 12,000 visits, or about two for each license (practically one-half of the visits are futile); that the proportion of refusals because of disease, poor sanitation, etc., is very small (about 2 per cent of the applications in 10 months); that the number of revocations is small (4.8 per cent of the number granted); that the grade of the family as determined by condition and cleanliness of the house, yard, and workroom and of the individual occupants, to which licenses are granted, is good. As to the location of home-working industries it appears that the workers are concentrated in the metropolitan area of Boston, although a large number of workers are scattered throughout the State. Cities and towns where licenses are granted are grouped mostly in the eastern part of the State.

The industries which manufacture wearing apparel are the only ones in which home workers have been licensed by the State, and the number of workers studied in the analysis was 2,643, found in 14 different occupations of that industry.

As to housing conditions, it appeared that of the 2,379 houses in which licenses were granted 42 per cent were tenements and 58 per cent were dwellings. The average family group is made up of three to four people, while the prevailing condition is that of one and one-half rooms for one person.

The work is carried on for the most part in the kitchen or dining room. In 24 per cent of all cases reported the work was done in the kitchen. The ventilation and heat of workrooms were reported as being "very good," or "good."

As to nativity, more than one-half of the workers were born in the United States, the ranking foreign nationalities being Italian, Canadian, and Irish.

The largest number of mothers and fathers are 25 to 35 years of age, with almost an equal number 35 to 45 years. A surprisingly large number of workers were over 60 years of age.

In more than three-fourths of the families where home work is done the father is living (78 per cent of the total 2,223 families). Of the entire number of families 81 per cent have no children at work; also of these 41 per cent have no dependent children; 21 per cent only one dependent child and 18 per cent two or more children.

The maximum income from home work is \$5 per week. The hourly rate of earnings for the majority of workers is from 7 to 10 cents. A large majority of those in the lowest income group (under \$520 per annum) supplement their income by taking boarders or lodgers.

As a result of its investigations the board made certain recommendations, among which were: Total prohibition of home work as the ultimate goal, with a present adjustment prohibiting manufacturing and mercantile establishments giving out home work requiring work on children's clothing, dolls, toys, foods, table linen, handkerchiefs, etc.; requirement of manufacturing and mercantile establishments to report monthly a list of employees engaged on home work; and an appropriation of \$10,000 to enforce the present law on home work.

Missouri.—KANSAS CITY.—Board of Public Welfare. *Sixth annual report, April 21, 1914—April 20, 1915. Kansas City, Mo. [1916.] 206 pp.*

The board of public welfare of Kansas City is a body which combines under one head the interests of the community expressed in such activities as those of factory inspection and research, recreation, charity, free legal aid, welfare of the homeless, the unemployed and the delinquent, and social service of various kinds. The cost during the year to maintain the board was \$147,058, an amount evidently insufficient, as considerable retrenchment in expenses and in the scope of the work was found necessary.

During the year the research bureau of the board made an investigation of the cost of housing working people in Kansas City and of the extent of child labor. This bureau also compiled a new directory of the charities of the city.

The survey of working children included 1,000 who were under 16 years of age, together with all colored children graduated in 1914 from the grade schools. The purpose of the survey was to ascertain the age at which children leave school, why they leave, in what occupations they are found, their success therein, and in what way the community either through its schools or other means can serve their interests. Data concerning 900 boys under 16 years of age show that the largest number, 317, or 35.2 per cent, were newsboys; the next largest number, 133, or 14.8 per cent, were in shops and stores; the third largest number, 108, or 12 per cent, were in department stores; while 101, or 11.2 per cent, were doing office and errand work.

Although the survey is said to have been so limited as to preclude the drawing of any definite conclusions, certain fundamental facts were, however, disclosed by the investigation. The principal reasons for withdrawal from school were found to be economic pressure, dissatisfaction, and the idea that further schooling was unnecessary. Positions are secured in a careless, haphazard fashion; there is much shifting around from job to job; "blind-alley jobs" are frequently taken up; and much of the work that is entered upon is demoralizing; while no regard is given to proper vocational training.

It is recommended as a result of the investigation that there be a complete and continuous system of registering children of school age; that there be organized a department of vocational guidance; the establishment of closer relation between the work of the attendance office, the night school and children at work; registration of child labor permits issued to the employer and their reissuance with each change in position, as well as the use of special vacation permits and increasing the age limit for night work in messenger service from 16 to 21 years.

The legal aid bureau handled 6,262 cases during the year, of which 2,494 were claims for wages, varying in amounts from 25 cents to \$50. There was collected by the bureau \$7,705.

The free employment bureau filled 2,834 permanent positions and 24,810 temporary jobs.

New York.—*Insurance Department.—Proceedings of the joint conference on workmen's compensation insurance rates, 1915. Albany, 1915. 39 pp.*

This report will be found summarized in this number of the REVIEW on p. 66.

—*NEW YORK CITY.—Bureau of Municipal Investigation and Statistics (Department of Finance). Report relative to proposed legislation providing pensions to widows with children. January 25, 1915. [New York, 1915.] 26 pp.*

—*Municipal Lodging Houses. Advisory Social Service Committee. The men we lodge: A report to the commissioner of public charities, city of New York, by the advisory social service committee of the municipal lodging houses. September, 1915. [New York, 1915.] 42 pp.*

This is a study into the character, conditions and causes of dependency of 1,500 homeless men who applied for shelter in the municipal lodging houses of New York City during March, 1914. The result of the investigation shows that a substantial proportion of the men who applied at the municipal lodging houses are unemployable. Of 2,000 men who were given medical examination 1,774 were declared physically able to work in the judgment of the examining physicians, and 226, or 11 per cent, were declared unable to work. Physical disability, retarded mentality, inebriety, habitual idleness, lack of training, and old age were some of the factors which contributed to the inefficiency of these men.

This report was also printed in the American Labor Legislation Review, New York City, for November, 1915 (Vol. 5, No. 3, Publication No. 30).

Ohio.—*Industrial Commission.—Rates of wages, hours of labor, and fluctuation of employment in Ohio in 1914.* Columbus, 1915. 317 pp. (Bulletin of the Industrial Commission of Ohio, vol. 2, No. 4; department of investigation and statistics, Report No. 16).

A statement concerning this investigation will be found on page 30 et seq. of this number of the REVIEW.

— — — *Union scale of wages and hours of labor in Ohio on May 15, 1915.* Columbus, 1916. 107 pp. (Bulletin of the Industrial Commission of Ohio, vol. 2, No. 8; department of investigation and statistics, report No. 20.)

This report shows the union scale of wages and hours of labor on May 15, 1915, in occupations in which a considerable number of the employees are organized in most cities. It includes data from 14 cities in Ohio having a population in 1910 of 25,000 or more. The information is classified by trades and by localities.

Advance in rate of wages was secured during the twelve-month period ending May 15, 1915, by about 18,000, or 24 per cent, of the 75,000 trade unionists covered in the report. These advances ranged generally from 50 cents to \$4 per week. One-sixth of the workers benefiting by these advances secured them through strikes, while the remaining five-sixths gained them through conferences, agreements, or other methods.

Pennsylvania.—*Department of Labor and Industry. Rules and rulings of the Pennsylvania workmen's compensation board issued by the workmen's compensation bureau of the department of labor and industry.* Harrisburg, 1916. (Bulletin No. 2.)

This bulletin contains rules and instructions for the execution of compensation agreements, rules of procedure, rulings of the board, and a list of forms as adopted by the compensation bureau in its administration of the State workmen's compensation act.

— — — *Department of Mines. Report, 1914.* Harrisburg, 1915. 2 vols.

Part I covers in detail the operations in the 21 anthracite districts, and Part II operations in the 28 bituminous districts, as returned by the inspectors. Observations and suggestions are offered relating to mine subjects, with special reference to improved physical and sociological conditions, first-aid and rescue work, relief funds, needed legislation, and accident prevention. The important facts are summarized in the introduction:

The coal production of Pennsylvania for the year 1914 was 237,074,171 net tons, of which 91,189,641 tons were anthracite and 145,884,530 tons bituminous. The coke production was 17,164,124 net tons. Both coal and coke showed a reduction from the high record of 1913. The decrease in the anthracite output was 437,323 tons; in the bituminous, 27,081,129 tons; and in the coke, 7,554,114 tons.

There was a notable decrease in the number of accidents in both regions. The anthracite fatalities numbered 600, as against 624 in 1913; the bituminous numbered 413, as against 611. The nonfatal accidents in the anthracite region numbered 1,014, as against 1,125 in 1913, and in the bituminous region 963, as against 1,082. Notwithstanding the reduced tonnage, the number of employees was considerably greater than in 1913, the reduction in tonnage being due to a reduction in the number of days worked. The anthracite region reported 180,899 employees, as against 175,310 in 1913; the bituminous reported 196,038, as against 189,909.

South Carolina.—*Department of Agriculture, Commerce, and Industries. Labor Division. Seventh annual report.* Columbia, 1916. 144, [1] pp.

A detailed report of the work of the division for the year 1915, with a discussion of the social and economic conditions obtaining in the State, and recommendations for legislative enactments; also statistical tables and industrial directory.

The average number of employees in South Carolina industries was 76,452, of whom 57,933 were males and 18,519 females. In these figures are included 4,660 male and 3,280 female workers under 16 years of age.

In 1909 there were 726 children under 12 years of age employed in the textile industries, but no such employees have been so engaged for the four past years. There were 28 prosecutions for violation of the child labor law, and 48 orders for dismissal of children under age, and an investigation of alleged violation of the 60-hour a week law was conducted.

The following legislative recommendations are made: An intelligible and enforceable 60-hour-a-week law; prohibition of the employment of children under 14 years of age; prohibition of the use of the suction shuttle in textile plants; establishment of a board of arbitration and conciliation; prohibiting professional performances of any child under 14 years of age in theaters, etc.; enlarging the scope of the messenger boy act; requiring fire escapes and other means of safety in case of fire, guarding of dangerous machinery, workshop ventilation and sanitation; bakery inspection; supervision of employment agencies; accident reports; creation of a commission to investigate problems of workmen's compensation and accident insurance. The State factory inspectors recommend the passage of a compulsory education law.

United States.—*Bureau of Naturalization (Department of Labor). An outline course in citizenship to be used in the public schools for the instruction of the foreign and native born candidate for adult-citizenship responsibilities. Washington, 1916. 28 pp.*

The introductory statement notes that this is a preliminary and imperfect outline, and merely meant to be suggestive; it was prepared in response to demands upon the Bureau to prepare such a course. Emphasis is laid on the desirability of having all instruction in the English language. Besides courses in civics, courses in domestic science are urged, including such matters as the care of children and infants.

—*Children's Bureau (Department of Labor). Child-labor legislation in the United States. Washington, 1915. 1131 pp. and one folder. (Bureau publication No. 10.)*

A compilation of all child-labor legislation in force in the various States and outlying possessions of the United States, as of October 1, 1915. Part 1 consists of 7 analytical tables of certain important provisions regulating the employment of children, compulsory school attendance, etc.

Part 2 consists of a reproduction of all such laws as are noted in the tables, and such as were not general in type or not of primary importance, and therefore were not included in the tabular statements presented.

—*Bureau of Immigration (Department of Labor). Immigration laws. Rules of November 15, 1911. Edition of February 12, 1916, with amendments to rules 6, 12, 19, 22, and 28. Washington, 1916. 71 pp.*

FOREIGN COUNTRIES.

Canada.—*Board of Inquiry into the Cost of Living. Report of the Board. Ottawa, 1915. 2 volumes.*

—*Department of Labor (statistical branch). The rise in prices and the cost of living in Canada, 1900-1914. A statistical examination of economic causes. Synopsis of exhibit by the statistical branch of the Department of Labor. Laid before the board of inquiry into the cost of living, 1915. Ottawa, 1915. 83 pp.*

A summary of this report will be found elsewhere in this issue of the REVIEW. (See p. 51.)

Denmark.—*Statens Statistiske Department. Statistisk aarbog 1915, 20de aargang. Copenhagen, 1915. xxiv, 230, [5] pp.*

This volume constitutes the twentieth issue of the statistical yearbook for Denmark, containing a classified table of contents both in the vernacular and in French, divided into eleven sections. It carries a detailed subject index. The data are brought to the end of the calendar year 1914, or up to the fiscal year ended March 31, 1915. The volume contains tables of retail and wholesale prices—index numbers for the latter—sickness insurance statistics, statistics of mutual benefit societies, unemployment

insurance, accident insurance, old-age pensions, strikes and lockouts, wages, hours of labor, immigration, trade unions, cooperation, etc., etc.

Germany.—*Allgemeiner Knappschaftsverein zu Bochum. Verwaltungsbericht für das Jahr 1914. Bochum, 1915. 2 vols.*

These two volumes contain a report of the general miners' fund in Bochum for the year 1914, one of the administrative bodies through which the workmen's insurance law applicable to miners is enforced. There is noted a decrease in the membership and receipts and an increase in expenditures with consequent reduction of the annual surplus, explained by the report as a result of the war.

The average membership in 1914 was 388,385 in the sick fund, 313,672 in the pension and aid fund, and 375,485 in the invalidity and survivors' fund. The combined assets of the 3 departments amounted to 298,052,535.74 marks (\$70,936,503.51).

The report contains detailed data as to the general condition of the health of the members and as to certain diseases.

— *Statistisches Amt. Die Krankenversicherung im Jahre 1913. Berlin, 1915. 17, 60 pp. (Statistik des Deutschen Reichs, Band 277.)*

This is the twentieth annual report on the activities of the German sick funds and relates to the year 1913. Medical care is provided from the first day of sickness; pecuniary aid is given beginning with the fourth day of sickness. Compensation continues for 26 weeks at the most. From this report and previous ones for the years 1911 and 1912 the following table was prepared by the Reichs-Arbeitsblatt:

RESULTS OF THE OPERATION OF GERMAN INDUSTRIAL SICK FUNDS, 1911 TO 1913.
[Source: Reichs-Arbeitsblatt, vol. 13, No. 3, pp. 233 ff. Berlin, 1915.]

	Total, all funds.			Per member.		
	1911	1912	1913	1911	1912	1913
Number of funds	23,109	21,659	21,342	.....	.....	.....
Average membership	13,619,048	13,217,705	13,566,473	.....	.....	.....
Average membership per fund	589.34	610.26	635.67	.....	.....	.....
Cases of sickness of members involving disability	5,772,388	5,633,956	5,710,251	0.42	0.43	0.42
Days of sickness involving payment of pecuniary benefits or hospital treatment	115,128,905	112,249,064	117,436,644	8.45	8.49	8.66
Ordinary receipts (interest, entrance fees, contributions, subsidies, and miscellaneous receipts, exclusive of receipts for invalidity insurance)	\$98,125,165	\$99,390,722	\$104,900,309	\$7.20	\$7.52	\$7.73
Contributions and entrance fees	92,449,305	93,679,394	98,588,587	6.79	7.09	7.27
Ordinary disbursements (costs of sickness, refund of contribution and entrance fees, costs of administration, exclusive of those for invalidity insurance, miscellaneous disbursements)	93,420,889	94,018,781	103,000,076	6.86	7.11	7.59
Costs of sickness	85,077,474	85,617,576	92,983,399	6.25	6.48	6.85
Medical treatment	19,933,505	20,380,724	22,358,051	1.46	1.54	1.65
Medicines and other curatives	12,654,754	13,020,038	14,355,602	.93	.99	1.06
Pecuniary sick benefits	36,552,748	35,794,829	38,446,843	2.68	2.71	2.83
Maternity benefits	1,618,199	1,715,038	1,803,748	.12	.13	.13
Death (funeral) benefits	2,029,064	1,888,035	1,911,602	.15	.14	.14
Hospital treatment	12,223,171	12,745,733	14,026,202	.90	.96	1.03
Care of convalescents	66,036	73,179	81,352	.005	.005	.007
Costs of administration (exclusive of those for invalidity insurance)	5,281,065	5,140,414	6,157,354	.39	.39	.45
Excess of assets over liabilities	74,096,997	73,133,115	73,986,569	5.47	5.53	5.45

— *Streiks und Aussperrungen im Jahre, 1914. Berlin, 1915. 23, 43 pp. Statistik des Deutschen Reichs, Band 279.*

This volume constitutes the sixteenth annual report on labor disputes by the Imperial Statistical Office. The report states that after the outbreak of the war all pending labor disputes quickly terminated, while during the war strikes occurred only to a negligible extent. Thus of all strikes reported during the year, 88.6 per cent fell into the period before the war, an additional 9.4 per cent were terminated soon after the outbreak of the war, while only 2 per cent began and terminated after the outbreak of the war. This 2 per cent of the number of strikes, however, included only

1.2 per cent of the total number of strikers involved. No lockout was reported in 1914 during the war months. The following table shows the distribution by industries of persons involved in strikes and lockouts during the 5-year periods, 1904-1908, 1909-1913, and 1914:

DISTRIBUTION, BY INDUSTRIES, OF PERSONS INVOLVED IN STRIKES AND LOCK-OUTS IN GERMANY, 1904-1908, 1909-1913, AND 1914.

Industry groups.	Number of industrial workers on June 12, 1907 (Industrial Census).	Annual average of striking and locked-out workers—				Striking and locked-out workers—	
		1904-1908		1909-1913		1914	
		Number.	Per cent of industrial workers.	Number.	Per cent of industrial workers.	Number.	Per cent of industrial workers.
Gardening, stock raising, and fishing.....	81,105	633	0.8	595	0.7	325	0.4
Mining, etc.....	817,504	58,109	7.1	69,332	8.5	2,292	.3
Stones and earths.....	694,516	10,758	1.5	12,396	1.8	10,571	1.5
Metal working, machinery, etc.	1,641,835	52,343	3.2	86,325	5.3	15,656	1.0
Chemical industry.....	134,138	1,818	1.4	2,640	2.0	428	.3
Forest by-products, etc.	71,014	502	.7	833	1.2	103	.1
Textiles.....	857,855	23,061	2.7	19,465	2.3	25,566	3.0
Paper.....	193,065	2,886	1.5	2,488	1.3	968	.5
Leather, etc.....	141,695	4,160	2.9	2,577	1.8	1,093	.8
Woodworking.....	526,478	18,276	3.5	13,397	2.5	4,995	.9
Food products.....	766,229	7,405	1.0	9,111	1.2	1,793	.2
Clothing and cleaning.....	648,841	15,190	2.3	16,946	2.6	2,936	.5
Building trades.....	1,273,150	69,933	5.5	77,668	6.1	18,577	1.5
Printing, engraving, etc.	167,796	1,848	1.1	1,931	1.2	95	.1
Commerce.....	731,703	6,536	.9	3,487	.5	1,512	.2
Transportation.....	274,190	6,131	2.2	7,992	2.9	7,991	2.9
Hotels, saloons, restaurants, etc.	294,611	81	.0	284	.1	163	.1
Public performances, and not specified industries.....	40,974	147	.4	126	.3	76	.2
Total.....	9,356,729	279,817	3.0	327,593	3.5	95,140	1.0

A total of 1,115 strikes were reported during 1914, involving 5,213 establishments employing 193,414 workers, of whom 58,682 went on strike. The largest number of strikes, 381, affecting 14,919 strikers, lasted for a period of from 1 to 5 days.

As in former years, wage disputes were the most frequent cause for strikes; 884 strikes with 48,029 strikers related to wages, while 230 strikes with 15,266 strikers related to the hours of labor, and 594 strikes with 36,355 strikers involved other demands. As to the results obtained 17 per cent of the strikes were wholly successful and 38.1 per cent were partially successful for the strikers, while 38.5 per cent were terminated without result for them.

The number of lockouts reported during 1914 was 108. They involved 833 establishments and 36,458 workers. The most important lockouts involving 446 establishments and 23,823 workmen took place in the textile industry in the Lusatia district. Considered from the viewpoint of the employers 43.5 per cent of the lockouts were terminated with full success, 50.9 per cent were compromised, and 5.6 per cent ended without result.

Germany.—*Statistisches Amt. Die Volkszählung im Deutschen Reiche am 1. Dezember 1910. Erster Teil: Einleitung und Darstellung der hauptsächlichen Ergebnisse. Berlin, 1915. vii, 155 pp. (Statistik des Deutschen Reichs, vol. 240, part 1.)*

This quarto volume constitutes a summary of the German census of population of December 1, 1910, ascertaining the usual information gathered by census inquiries regarding the sex, age, conjugal condition, occupation, religion, citizenship, etc., of the population. A census of dwellings was also undertaken in connection with it. The Federal law of February 10, 1910, left the direction and responsibility for the taking of the census to the individual communes.

According to this census the population of Germany was 64,925,993 on December 1, 1910, or an increase of 7.07 per cent since December 1, 1905. The absolute increase of 4,284,504 was the largest ever recorded in any five-year period since 1871, the year of the foundation of the German Empire. The relative increase, however, was exceeded in both 1900 (7.82 per cent) and in 1905 (7.58 per cent). Of the increase during the five-year period, the excess of immigration over emigration accounted for 159,904. The annual increase in population during the period 1905 to 1910 was 1.36 per cent. The annual increase in population in the United States for the 10-year period, 1900-1910, was 1.93 per cent. The density of population was 310.9 persons per square mile, as compared with 157 per square mile in 1840, or nearly doubled that of the latter date.

The exodus of the rural population to urban centers has continued in Germany during the last five years according to this census. Thus in 1905, 43 per cent of the population lived in rural communes of less than 2,000 population, while in 1910 this proportion had decreased to 40 per cent. Of the urban increase the larger proportion of it went to cities having a population of 100,000 and over, as the proportion of those living in cities ranging from 2,000 to 100,000 was practically the same at both the censuses of 1905 and 1910, while for the former class of cities the proportion in 1905 was 19 per cent, and in 1910 it was 21 per cent.

Germany.—*Zentral Verein für Arbeitsnachweis zu Berlin. Geschäftsbericht für das Jahr 1914-15. Berlin, 1915. 34 pp.*

During the year ending March 31, 1915, the Berlin central employment exchange, semipublic and State subsidized, through its own central office and its nine sub-departments registered 480,812 applications for work. It was notified of 355,031 vacant situations and succeeded in filling 292,971 vacancies. These figures indicate an average of 135 applicants for each 100 vacancies, and that situations were secured for 60.9 per cent of the applicants registered. The number of applicants for each 100 vacancies was the largest in August, 1914—i. e., 270—and lowest in March, 1915—i. e., 86. Since the outbreak of the war up to March 31, 1915, the exchange placed 40,762 applicants for work with the army as trench diggers. In order to meet the large amount of unemployment among female workers, the exchange, in August, 1914, opened workshops for the manufacture of war supplies, so that at the end of September about 3,000 were employed in the manufacture of cartridge belts, bags for hard-tack and bread, helmet covers, etc. The report comments in terms of praise upon the successful work of the exchange as compared with the inefficient work done during the war by the employment exchanges organized by employers.

— **MUNICH.**—*Schulrat.—Achter Jahresbericht der männlichen Fortbildungs- und Gewerbeschulen Münchens für das Schuljahr 1913-14. Erstattet von Schulrat Dr. G. Kerschensteiner. Munich, 1914. 446 pp.*

This is the eighth annual report on improvement and trade schools for boys in Munich, containing general statistics for the entire system of these schools and detailed data as to attendance, curriculum, teaching staff, etc., for each individual school.

— **PRUSSIA.**—*Statistisches Landesamt. Statistisches Jahrbuch für den preussischen Staat, 1913, vol. 11. Berlin, 1914. xlvi, 693 pp.*

In the present eleventh issue of the yearbook for Prussia the Prussian State Statistical Office presents in 21 sections and an appendix statistical data on practically the same topics as in former issues. Section six is exclusively devoted to labor conditions and gives data on employment offices, wages, hours of labor, strikes and lockouts, and establishments and employees working under collective agreements. Other sections contain statistical material on cooperative societies, hours of labor

and rest periods of railroad employees, retail prices of foodstuffs, workmen's insurance, housing of workmen, and workmen's colonies. The volume is provided with a detailed index giving the sources of all data.

Germany.—*SAXONY.—Statistisches Landesamt. Statistisches Jahrbuch für das Königreich Sachsen. vol. 42, 1914/15. Dresden, 1915. 362 pp.*

This is the forty-second issue of the yearbook published by the State Statistical Office of Saxony and presents the usual information contained in such publications. The material is grouped in 21 sections and indexed alphabetically. It contains statistical data relating to daily hours of labor and rest periods; employment bureaus; unemployment; strikes and lockouts; collective agreements; current wages by localities; wages of miners; wages and labor conditions in the State railroad service; wages in several cities; and wages of workmen insured in trade accident associations; number of industrial establishments employing more than ten workmen and number of the workmen employed, by industries; retail prices of foodstuffs in selected cities; and statistics of cooperative societies.

Great Britain.—*Board of Trade. Vehicle making and miscellaneous metal trades. Prepared on behalf of the Board of Trade for the use of advisory committees for juvenile employment in Greater London. London, 1915. 43 pp. (Handbooks on London trades.)*

This handbook is one of a series prepared for the use of vocational guidance committees in their work of advising boys and girls as to the choice of suitable employment. This particular pamphlet gives brief descriptions of the different occupations which enter into wagon manufacture and in different metal trades. It describes conditions of work, hours and wages, generally prevailing, and notes opportunities for entrance in the various occupations so far as those matters concern young workers.

— *Railway accidents. Summary of accidents and casualties reported to the board of trade by the several railway companies in the United Kingdom during the three months ending 31 March, 1915, together with reports to the Board of Trade by the inspecting officers [etc.] upon certain accidents which were inquired into. London, 1915. 143 pp.*

Contains text statements concerning special investigations made of railway accidents by officers of the board of trade during the first quarter of 1915.

— *Chief Registrar of Friendly Societies. Reports of the chief registrar of friendly societies for the year ending December 31, 1914. Part A: General report. London, 1915. 250 pp.*

This report is based upon returns from friendly, collecting, cooperative, and building societies, and trade unions, and other similar organizations. The general report shows the membership, income, expenses for benefits and management, and balances for the year 1914, by classes of societies, while the summary tables cover the operations for the year 1913. A study of the origin, growth, and development of friendly societies may be found in the twenty-fourth annual report of this bureau, 1909, volume 2, page 1550 et seq.

— *Departmental Committee on Land Settlement for Sailors and Soldiers. Introduction and Part I of the final report of the departmental committee appointed by the president of the Board of Agriculture and Fisheries. London, 1916. 30 pp. fold. chart.*

A statement concerning this report may be found on pages 11 to 13 of this number of the REVIEW.

— *Home Department. Mines and quarries; general report, with statistics, for 1914. London, 1915. 2 vols: Part II, Labor; Part III, Output.*

This report appears regularly in three parts. The general summary, or part one, was listed and a brief abstract made in the December, 1915, issue of the REVIEW.

Great Britain.—*Local Government Board. Maternal mortality in connection with child bearing and its relation to infant mortality. London, 140 pp. (Its forty-fourth annual report, 1914-15; Supplement in continuation of the report of the medical officer of the board for 1914-15.)*

— *Manual of emergency legislation comprising all the acts of Parliament, proclamations, orders, etc., passed and made in consequence of the war. London, 1914, 1915. 5 vols.*

This single volume and four supplements, all told some 2,000 pages, comprise British emergency legislation during substantially the first year of the war or to August 31, 1915.

— *Post Office. Standing Committee on Boy Labor. Fifth annual report. London, 1915. 22 pp.*

The standing committee on boy labor in the post office of Great Britain was appointed to investigate and make recommendations concerning the employment of boys between the ages of 14 and 16 in the post office department, with a view to making their employment profitable to them upon their discharge, preparing them for work outside of the office, and giving advice regarding their physical training, education, etc. It made its first report November 21, 1910.

— *Royal Commission on the Civil Service. Sixth report of the commissioner; minutes of evidence, February 11 to July 8, 1915, with appendices. London, 1915. 2 vols.*

The civil-service commission was appointed in 1912 to investigate the methods of making application and promotions in the civil service, the diplomatic and consular services and the legal department, and to investigate in general the system of competitive examination for civil-service appointment, with a view to making recommendations for any alterations or improvements which might be advisable.

The commission presented 5 reports and went out of existence. A new appointment was made January, 1915, and the above report, called the sixth report of the commission, was issued regarding conditions of appointment and promotion of employees in the judicial department of Great Britain. As the legal department of England and Scotland differ materially, this report was divided in two parts, one devoted to the system of each country.

— *BLACKBURN.—Public Health Department. Annual report upon the health of Blackburn for the year 1914. Blackburn, 1915. xv, 186 pp. and statistical folders.*

Contains matter relating to the health and sanitary conditions of the borough of Blackburn, year ending December 31, 1914; also vital and mortality statistics, some material relating to the inspection of factories and workshops and the operations of the house and town planning act of 1909. Death rates among persons engaged in the cotton industry of the city are given for 1914 and average rates for the period 1889 to 1914, by causes; operatives are classified into four occupational groups—weavers, spinners, winders and warpers, and card-room hands.

India (Madras).—*Judicial Department. Factories report, 1914. Madras, 1915. 18 pp.*

Italy.—*Ministero di Agricoltura, Industria e Commercio. Direzione Generale del Credito e della Previdenza. Atti del consiglio della previdenza e della assicurazione sociali. Sessione del 1915. Rome, 1915. 550 pp. (Annali del credito e della previdenza. Series II, No. 15).*

The minutes of the meeting of the council of savings and social insurance (Apr. 12-16, 1915). The meeting discussed questions relating to mutual aid societies, life insurance, insurance institutes for the employees of common carriers and questions of social insurance in general.

Italy.—*Ispettorato Generale del Commercio. Indici economici, 1903-1914; 1914. Rome, 1915. 2 vols.*

These two volumes form an addition to the statistical literature of so-called business barometrics, and have been gathered by the Italian Inspectorate General of Commerce from various official sources. These data will be continued in the future in a regular monthly publication. There are presented such data as the discount rate of Italian banks of issue, holdings of commercial paper by banks of issue, and private financial institutions; gold and silver in banks of issue, rates of foreign exchange, Italian Government bond quotations, public revenues, clearing-house transactions, taxes on business, stamp taxes, movement of railroad traffic, imports and exports and trade balance, imports and exports of certain articles, stock quotations, deposits in postal savings banks, relative prices of foodstuffs and grains, immigration, and strikes and lockouts.

— *Provvedimenti in materia di economia e di finanza in seguito alla guerra Europea. Part I. August 1, 1914, to July 31, 1915. Rome, 1915. 620 pp. (Annali del credito e della previdenza, Series II, vol. 10.)*

The first volume of a collection of economic and financial measures enacted in Italy during the European war. The volume covers the period August 1, 1914, to July 31 1915, and reproduces laws, decrees, ministerial circular orders, orders of the military authorities, and policy forms and premium tariffs adopted by the National Insurance Institute and the National Accident Insurance Fund for War Risks.

— *Provvedimenti in materia di economia e di finanza emanati in Austria in seguito alla guerra Europea. Part I. August 1, 1914, to March 31, 1915. Rome, 1915. (Annali del credito e della previdenza, Series II, vol. 13.) 386 pp.*

A reproduction of war measures of an economic and financial character enacted in Austria between August 1, 1914, and March 31, 1915.

Netherlands.—*Centraal Bureau voor de Statistiek. Werkstakingen en uitsluitingen in Nederland gedurende, 1913. The Hague, 1915. lii, 207 pp. (Bijdragen tot de Statistiek van Nederland, new series, No. 216.)*

This volume reports 400 strikes in the Netherlands during 1913, of which number 383 involved 23,990 strikers and 1,878 establishments. Of the total reported 362 were for an increase in wages, 24 against a decrease in wages, 89 due to other wage questions, 84 due to demands as to hours of labor, 14 caused by a demand for unionism, 38 for reinstatement of discharged employees, 7 in relation to shop rules, 39 involving questions of the contract of hire, and 101 for other demands not known. The strikers succeeded in 91 instances, were partially successful in 159, failed in 116, and concerning 27 disputes the result was unknown or doubtful. More than one-half, or 228 strikes, lasted less than one week.

During the year 1913, 27 lockouts were reported affecting 404 establishments and 6,171 employees. Of these one failed, 18 were partially successful, 6 were wholly successful, and for 2 no report is made.

— *Departement van Landbouw, Nijverheid en Handel. Overzicht van de verslagen der kamers van arbeid over 1914. The Hague, 1915. lxi, 59, ii pp.*

A report of the operations of the labor councils in the Netherlands in 1914. These councils are equipartisan bodies composed of representatives elected by employers and by employees, serving either for a trade or for a locality. They have considerable authority in all questions as to labor conditions, hours, wages, etc.; they also act as conciliators and arbitrators in labor disputes and in interpreting disputed points in labor agreements. Their advice and influence are particularly noteworthy in government work, both State and municipal. Of 85 organized councils at the close of 1914, 3 made no report.

Netherlands.—*Directie van den Arbeid. De Handvasserij in Friesland. Uitgegeven voor rekening van het Departement van Landbouw, Nijverheid en Handel. The Hague, 1915.* 37 pp.

This volume contains the report of an investigation of the flax spinning industry in the Province of Friesland in the Netherlands made during the winter of 1913-14 by the inspectors of the labor office. The inquiry covered 2,341 work places in which 3,587 persons were employed. The small number of persons employed in proportion to the number of work places shows quite clearly that the industry is predominately a hand-working one. The fact that 24 per cent worked on their own account is also a partial indication of its being a handicraft primarily, while it also appeared that in the case of 1,174 establishments 506 were reported as employing only one workman each. It is likewise a highly seasonal industry, as indicated by the fact that out of a total of 2,273 from whom returns were received, 439, the largest proportion, or 19.3 per cent, worked only 10 weeks out of the year, while only 57, or 2.5 per cent, worked 20 weeks and over.

In former times the preparation and spinning of flax was entirely a hand operation, but in recent years it is noted that small machines are being introduced to a considerable extent.

— *Verslag over het haventoezicht uitgevoerd in 1914. [The Hague] 1915.* xii, 84 pp. (Publication No. 17.)

This is the fifth special report issued by the Dutch labor department on conditions in dock labor at the principal coast harbors in Holland. The first report was one made as of January 1, 1910, and subsequent reports have appeared annually for the years 1910 to 1913. The volume here listed notes conditions prevailing in 1914. The inspections and investigations are made by district labor inspectors. The reports relate mainly to Rotterdam and Dordrecht, Amsterdam, Zaandam, Velsen, and Westzaan, and includes such matters as hours, wages, accidents, and living conditions. A brief survey is also included for several smaller harbors treated separately. The 1914 report presents a special chapter also concerning conditions in dock labor resulting from the war. No general summary is presented.

A special law, it is noted, was enacted October 16, 1914, for the protection of stevedores and other dock laborers.

New South Wales.—*Department of Labor and Industry. Report on the workings of the factories and shops act, 1912, during the year 1914.* Sydney, 1915. 59 pp.

The average number of persons employed in the factories of New South Wales in 1914 was reported as 90,141, as compared with 95,584 in 1913. The number of factories was 5,993 in 1914 as compared with 5,561 in 1913. Of the number of employees reported for 1914, 70 per cent were males and 30 per cent females. There were 2,128 males under 16 years of age and 2,480 females.

There were reported 442 accidents during the year, of which 9 were fatal.

During 1914, 177 informations were laid for violation of the act, out of which 168 convictions were had. The number of informations laid in 1913 was 90 and the number of prosecutions 89.

— *Government Statistician. The official yearbook of New South Wales, 1914.* Sydney, 1915. 1,010 pp.

An historical and statistical descriptive manual of New South Wales.

New Zealand.—*National Provident Fund. Fourth annual report of the board for the year ended December 31, 1914.* Wellington, 1915. 2 pp.

The National Provident Fund of New Zealand was established by law in 1910 and came into operation on March 1, 1911. It is a government insurance scheme whose purpose is to provide for annuities in old age, supplemented, however, by maternity

and sickness benefits. The system is open to any persons between the ages of 16 and 45 years residing in New Zealand and whose average income during three years prior to joining has not exceeded approximately \$1,000 a year.

Norway.—*Riksversikringsanstalten. Fiskerforsikringen for Aar 1914. Christiania, 1915.* (*Norges officielle statistik*, VI, 54.) 16*, 43 pp.

This is a report of the operation of the law of August 8, 1908, and amendment of August 18, 1911, establishing accident insurance in Norway for fishermen and sealers. From 1909 to 1914 there had been paid in premiums 810,120.70 crowns (\$217,112.35), while the amount of compensation paid for the period was 978,171.37 crowns (\$262,149.93). The difference between the premiums and compensation is paid by the State harbor fund.

ACCIDENTS REPORTED AND COMPENSATED AND RATE PER 10,000 PERSONS INSURED,
FISHERMEN'S ACCIDENT INSURANCE DEPARTMENT, NORWAY, 1909 TO 1914.

Year.	Number insured.	Accidents reported.				Compensated accidents resulting in—			
		Compensated.	Not compensated.	Total.	Rate per 10,000.	Death.		Disability.	
						Number.	Rate per 10,000.	Number.	Rate per 10,000.
1909.....	91,240	422	116	538	59.0	186	20.4	236	25.9
1910.....	89,925	342	122	464	51.6	199	22.1	143	15.9
1911.....	87,832	291	92	383	43.6	163	18.6	128	14.6
1912.....	89,911	271	104	375	41.7	137	15.2	134	14.9
1913.....	89,197	297	91	388	43.5	187	21.0	110	12.3
1914.....	87,614	270	122	392	44.7	151	17.2	119	13.6
Total.....	535,719	1,893	647	2,540	47.4	1,023	19.1	870	16.2

For further information concerning accidents in Norway fisheries, reference is made to Bulletin No. 157 of this Bureau, pp. 139-141.

— *Riksversikringsanstalten. Industristatistik for Aaret 1913. Christiania, 1915.* 39, 90 pp. (*Norges officielle statistik*, VI, 53.)

This volume consists of a report issued by the Royal Workmen's Insurance Institute. The report of the office is limited in the sense that the law of July 23, 1894, and amendments thereto, June 9, 1911, authorizes supervision only of insured industrial establishments. It is the purpose of the present report to show the industrial development in Norway from 1897 to 1913, with particular reference to conditions prevailing in 1913. Detail statistical tables are prepared showing the number of insured establishments, average number of insured employees, days of work, wages, etc., by industries and occupations, and by Provinces.

Queensland.—*Department of Labor. Report of the director of labor and chief inspector of factories and shops. Year ending June 30, 1915. Brisbane, 1915.* 139 pp.

Statistical report of the government labor exchange and the work of the department in the inspection of factories and workshops.

— *Registrar of Friendly Societies. Thirtieth report of the Registrar of friendly societies, building societies, and trade unions. Brisbane, 1915.* 38 pp.

Friendly societies may be briefly described as a mutual aid or benefit systems organized as a rule by persons of moderate means. They are essentially mutual insurance societies supported by contributions from their members. They are recognized and favored by law but must submit to a degree of administrative supervision of their finances and operations by the State authorities.

The report here listed relates to the operation of friendly societies, building societies, and trade-unions in Queensland in the year 1914, although data as to registrations is complete up to September 30, 1915. The membership of friendly societies on December 31, 1914, was 52,247, as compared with 32,164 in 1905. There was paid out in benefits in 1914 to members and their dependents £112,020 (\$545,145) in 1914, as compared with £77,733 (\$378,288) in 1905. The administrative expenses for the years indicated was £28,076 (\$136,631.85) and £73,359 (\$357,002), respectively.

That part of this report relating to building associations shows 16 such societies in existence at the end of 1914.

The number of trade-unions was 36 and employers' association 7. The expenditures of the trades-unions in 1914 were as follows: Strike pay £549 (\$2,672); sickness, £1,143 (\$5,562); superannuation, £438 (\$2,131); funeral benefits, £346 (\$1,684); unemployment relief, £606 (\$2,949); other benevolent grants, £61 (\$297), a total of £3,143 (\$15,295) for benefits. Expenses of management made up £8,797 (\$42,811), or 56.5 per cent of the total £15,576 (\$75,801). The remainder £3,636 (\$17,695) consisted of certain miscellaneous items of expenditure.

Scotland.—*Government Committee on War Organization in the Distributing Trades in Scotland. First report. Edinburgh, 1915. 11 pp.*

The committee was appointed to determine how far it would be practicable to readjust conditions of employment in the selling trades in Scotland so as to release a larger number of men for enlisting or other national service with the minimum of interference with the necessary conduct of the trades. The problem was of some moment when it is known that there were employed in the distributing trades in Scotland, according to the census of 1911, 152,081 persons out of a total population of 4,760,904. Consideration was given by the committee to the matter of substituting women and girls for the employment of men and boys, and it is recommended that in so far as the character and conditions of the work performed by women approximate to that performed by men the pay of the women should approximate that of the men. It was also suggested that a uniform system of shorter hours might be adopted. One very definite recommendation was to the effect that the release of men from the trades for service in the army or navy or munition factories should be accompanied by guarantee of reinstatement for them after the war, if they desire to return to the work and are suitable for it.

South Australia.—*Statistical Department. Statistical register of the State of South Australia for the year 1914. Part III.—Production (section 1. Prefatory report). [Adelaide,] 1915. xxi pp.*

Statistical report of agricultural and industrial production in the State of South Australia, year ending June 30, 1915.

Sweden.—*Pensionsstyrelsen. Årsberättelse, 1914. Stockholm, 1915. 35 pp.*

The general law on old-age pensions, enacted June 30, 1913, became applicable in Sweden January 1, 1914. The report here listed gives the results of operations for the first year of its application. The law provides for pensions to Swedish citizens who have arrived at the age of 67, or have suffered permanent incapacity for work. The law is a contributory measure, although the State supplies a subsidy. The basic contribution of the insured person is 3 crowns per year, together with an additional premium graded according to the income of the insured. Contributions are made by the insured during the period of from 15 to 66 years of age. The annual pension forms 30 per cent of the total amount of the premiums contributed (principal and interest) in the case of men and 24 per cent for women, with a gradual reduction corresponding to the increasing age of those who have completed their twenty-fifth year at the time the law became effective.

The number of insured persons paying premiums in 1914 was 3,225,700, of whom 890,200 lived in cities and 2,335,500 lived in rural districts. The total amount of basic premiums paid in amounted to 8,162,900 crowns (\$2,187,657.20), municipal

contributions proportional to basic contributions of insured persons amounted to 1,514,200 crowns (\$405,805.60), and the amount of premiums paid by insured persons supplementary to basic premiums amounted to 4,893,900 crowns (\$1,311,565.20), a total of 14,571,000 crowns (\$3,905,028.00). During the year 43,495 individuals made claims for pensions, of whom 32.4 were males. The number actually receiving pensions was 33,138, and the amount paid out was 1,875,456.65 crowns (\$502,622.38), or an average of 56.60 crowns (\$15.17) for each pensioner during the year.

Under the voluntary feature of the law which permits persons who so desire to make contributions of at least 30 crowns per year, so as to secure a larger pension than under the compulsory system, 628 persons were registered at the end of the year.

Sweden.—*Socialstyrelsen. Kollektivavtal i Sverige dr 1914. Stockholm, 1915. 39 pp. (Sveriges officiella statistik. Socialstatistik.)*

Since 1908 that office of the Swedish Government concerned with the investigation of labor problems and the administration of the labor laws has published annual accounts of collective agreements entered into between employers and employees. The publication here listed presents that information for 1914. During the year 226 agreements were recorded which fixed the conditions of employment between 59,980 workmen and 1,572 employers. As far as data are available, the following table shows the relative extent of the agreements in force on January 1, 1914, and January 1, 1915:

NUMBER AND PER CENT OF INDUSTRIAL EMPLOYEES IN CERTAIN INDUSTRIES IN SWEDEN EMPLOYED UNDER TRADE AGREEMENTS, 1914 AND 1915.

Industry groups.	Total wage earners 1913.	Number and per cent under trade agreements on—			
		Jan. 1, 1914.		Jan. 1, 1915.	
		Number.	Per cent.	Number.	Per cent.
Mining and metal industries.....	119,608	63,522	53.1	63,613	53.1
Earth, stone, and clay industries.....	45,274	21,534	47.6	22,050	48.7
Woodworking.....	62,633	20,513	32.8	18,603	29.7
Paper, printing, and publishing.....	38,288	20,519	53.6	21,367	55.8
Food products.....	45,692	18,330	40.1	19,150	41.9
Textiles and clothing.....	52,479	13,444	25.6	23,260	44.3
Leather, hair, and rubber.....	20,055	10,180	50.8	11,743	58.6
Chemicals.....	14,469	3,208	22.2	5,275	36.5

The total number of agreements in force on January 1, 1915, was 1,408, involving 8,168 employers and 244,390 employees, as compared with 1,448 in force on January 1, 1914, which included 8,300 employers and 233,020 employees within their terms.

Of the 226 agreements which became operative in the course of the year 1914, 117 were concluded by organized employers, and 109 by unorganized employers; 217 by organized workmen and 9 by unorganized workmen. The majority of the agreements, or 148, were concluded between employers of one or more employees; 71 were local in their scope, and 7 were of national extent. These latter, however, involved the largest portion of workmen, i. e., 33,900. The relative number of specified duration has been as follows during those years for which reports have been received:

	Less than one year.	One year but not over two.	Two years but not over three.	Three years but not over four.	Over four years.	Duration not specified.
1908.....	32.3	37.6	22.3	2.6		5.2
1909.....	18.9	43.6	26.3	5.3	4.4	1.5
1910.....	16.1	15.2	10.2	40.2	16.5	1.8
1911.....	9.6	12.8	10.5	4.1	60.3	2.7
1912.....	12.0	9.5	20.3	15.5	41.1	1.6
1913.....	12.2	13.9	47.7	14.3	11.0	.8
1914.....	20.3	13.3	35.0	15.5	13.3	2.6

The number of workmen affected and the relative number of collective agreements is shown in the following table in relation to the hours of labor specified in the agreements entered into in 1914.

PER CENT OF AGREEMENTS ESTABLISHING SPECIFIED CLASSIFIED WEEKLY HOURS OF LABOR, TOGETHER WITH NUMBER OF WORKMEN AFFECTED, 1914.

Classified weekly hours of labor.	Number of workmen.	Per cent of agreements.	Classified weekly hours of labor.	Number of workmen.	Per cent of agreements.
48 hours and less.....	3,998	6.7	59 hours.....	13,225	22.1
49 to 53 hours.....	5,383	9.0	60 hours.....	21,098	35.2
54 hours.....	696	1.2	Over 60 hours.....	296	.5
55 to 56 hours.....	1,636	2.7			
57 hours.....	10,166	17.0	Total.....	59,844	100.0

Time rates were established in 43 of the 226 agreements, affecting 6,884 workmen; the remaining contracts established piece rates or a combination of the two methods of payment. A minimum time rate was guaranteed to piece workers in 26 instances, affecting 942 workmen. Provision for sickness, accident relief figured in several of the agreements. Another provision of several agreements related to their interpretation by arbitration or otherwise. In 139 agreements affecting 56,813 workmen there was a clause to the effect that the employer reserved the right to hire and discharge his men unhindered and to take on indiscriminately organized or unorganized workmen. Freedom of association was specifically recognized in 154 agreements affecting 49,820 workmen. Provisions relative to apprentices were found in 36 agreements affecting 8,752 workmen.